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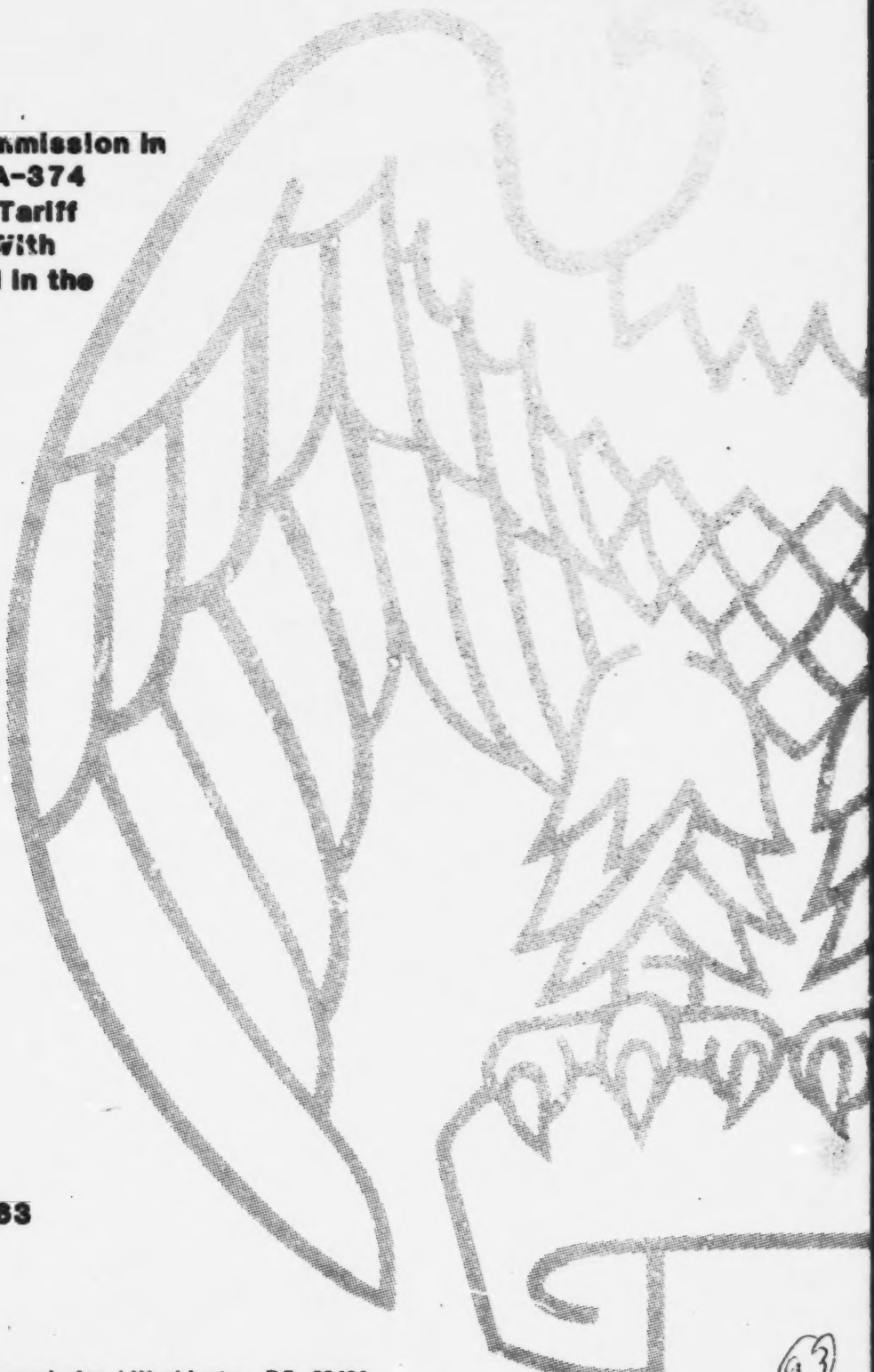
POTASSIUM CHLORIDE FROM CANADA

Determination of the Commission in Investigation No. 731-TA-374 (Preliminary) Under the Tariff Act of 1930, Together With the Information Obtained in the Investigation



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UNITED STATES INTERNATIONAL TRADE COMMISSION

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Cynthia Trainor, Office of Industries
Gerry Benedick, Office of Economics
Marshall Wade, Office of Investigations
Marcia Sundeen, Office of the General Counsel

Bob Eninger, Supervisory Investigator

Address all communications to
Kenneth R. Mason, Secretary to the Commission
United States International Trade Commission
Washington, DC 20436

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C O N T E N T S

	Page
Determination	1
Views of the Commission	3
Additional views of Chairman Liebeler	13
Information obtained in the investigation:	
Introduction	A-1-24
Other investigations concerning potassium chloride	A-1
Description and uses	A-2-25
Production process	A-3-26
U.S. tariff treatment	A-4-27
Nature and extent of alleged LTFV sales	A-4
U.S. producers	A-6-29
U.S. importers	A-8-31
World potash reserves and production capacity	A-8
The U.S. market	A-10-33
Consideration of material injury or threat thereof	A-13-36
U.S. production, capacity, and capacity utilization	A-13
U.S. producers' shipments	A-16-39
U.S. producers' inventories	A-19-42
Employment and wages	A-20-43
Financial experience of U.S. producers	A-22-45
Operations producing potassium chloride	A-22
Overall establishment operations	A-22
Value of property, plant, and equipment	A-22
Capital expenditures and research and development expenses	A-25-48
Capital and investment	A-25
Consideration of threat of material injury	A-25
Importers' inventories	A-25
The potassium chloride industry in Canada	A-26-49
Consideration of the causal relationship between alleged LTFV imports and alleged material injury:	
U.S. imports	A-33-56
Prices	A-36-59
Introduction	A-36
Questionnaire price data	A-38-61
Price trends	A-38
Coarse grade potassium chloride	A-39-62
Granular grade potassium chloride	A-39
Price comparisons	A-39
Coarse grade	A-41-64
Granular grade	A-41
Transportation costs	A-41
Exchange rates	A-45-68
Lost sales	A-47-70
Lost revenue	A-49-72

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CONTENTS

	Page
Appendix A. Federal Register notices of the U.S. International Trade Commission and the U.S. Department of Commerce	B-1-75
Appendix B. List of witnesses appearing at the Commission's conference	B-7-79
Appendix C. Trade data and financial performance tables of U.S. producers of potassium chloride, with IMC excluded, 1984-86	C-1-82

Figures

1.	Flow chart of the potassium chloride production process	A-5
2.	U.S. producers' shipments of potassium chloride and U.S. imports of potassium chloride, 1962-86	A-12
3.	U.S. production of potassium chloride, 1962-86	A-15
4.	U.S. imports of potassium chloride, 1962-86	A-35

Tables

1.	Potassium chloride: U.S. consumption, by uses and by grades, 1983 and 1986	A-3
2.	Potassium chloride: U.S. producers' plant locations, types of operations, years production began, shares of 1986 U.S. production, and parent firms	A-7
3.	Potash: World reserves and capacity, by countries, 1986	A-9
4.	Potassium chloride: U.S. producers' shipments, imports, and apparent consumption, 1962-86	A-11
5.	Potassium chloride: U.S. production capacity, production, and capacity utilization, 1977-86	A-14
6.	Potassium chloride: U.S. producers' shipments, 1984-86	A-17
7.	Potassium chloride: U.S. exports of domestic merchandise, by principal markets, 1977-86	A-18
8.	Potassium chloride: U.S. producers' yearend inventories, 1977-86	A-19
9.	Average number of production and related workers engaged in the production of potassium chloride, average number of hours worked by such workers, and wages, total compensation, and hourly compensation paid to such workers, 1984-86	A-21
10.	Income-and-loss experience of 6 U.S. producers on their operations producing potassium chloride, accounting years 1984-86	A-23
11.	Income-and-loss experience of 6 U.S. producers on the overall operations of their establishments within which potassium chloride is produced, accounting years 1984-86	A-24
12.	Potassium chloride: Importers' yearend inventories and shipments of product imported from Canada, 1984-86	A-26
13.	Potassium chloride: Canadian producers' plant locations, types of operations, years production began, and parent firms	A-27
14.	Potassium chloride: Canadian producers, location of production facilities, and annual production capacity, 1986	A-29

BEST COPY AVAILABLE

CONTENTS

		Page
15.	Potassium chloride: Canadian production capacity, production, capacity utilization, exports, and exports to the United States, 1982-86	A-30
16.	Potassium chloride: U.S. imports for consumption, by principal sources, 1977-86	A-34
17.	Potassium chloride: U.S. imports and U.S. producers' shipments as a share of consumption, Canada and all other sources, 1984-86	A-36
18.	Potassium chloride: Indexes of net f.o.b. selling prices of domestic and imported Canadian potassium chloride, by grades, by sales from mine or warehouse, and by quarters, January 1985-December 1986	A-40
19.	Coarse grade potassium chloride: Quantities and net delivered selling prices of the domestic and imported Canadian products and margins of under/(over) selling, by geographic areas and by the first week of each month, August 1985-November 1986	A-42
20.	Granular grade potassium chloride: Quantities and net delivered selling prices of the domestic and imported Canadian products and margins of under/(over) selling, by geographic areas and by the first week of each month, January 1985-December 1986	A-43
21.	U.S.-Canadian exchange rates: Indexes of the nominal and real exchange rates between the U.S. and Canadian dollars, and indexes of producer prices in the United States and Canada, by quarters, January 1984-December 1986	A-46
C-1.	Potassium chloride: U.S. production capacity, production, and capacity utilization, with IMC excluded, 1984-86	C-3
C-2.	Potassium chloride: U.S. producers' shipments, with IMC excluded, 1984-86	C-3
C-3.	Potassium chloride: U.S. producers' yearend inventories, with IMC excluded, 1984-86	C-4
C-4.	Average number of production and related workers engaged in the production of potassium chloride, average number of hours worked by such workers, and wages, total compensation, and hourly compensation paid to such workers, with IMC excluded, 1984-86	C-5
C-5.	Income-and-loss experience of International Minerals and Chemicals (IMC) and 5 other U.S. producers on their operations producing potassium chloride, accounting years 1984-86	C-6
C-6.	Income-and-loss experience of International Minerals and Chemicals (IMC) and 5 other U.S. producers on their overall operations of the establishments within which potassium chloride is produced, accounting years 1984-86	C-7

Note.--Information that would reveal the confidential operations of individual concerns may not be published and, therefore, has been deleted from this report. Such deletions are indicated by asterisks.

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UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, DC

Investigation No. 731-TA-374 (Preliminary)

POTASSIUM CHLORIDE FROM CANADA

Determination

On the basis of the record 1/ developed in the subject investigation, the Commission determines, pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. § 1673b(a)), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports from Canada of potassium chloride, provided for in item 480.50 of the Tariff Schedules of the United States, that are alleged to be sold in the United States at less than fair value (LTFV).

Background

On February 10, 1987, a petition was filed with the Commission and the Department of Commerce by Lundberg Industries, Ltd., of Dallas, TX, and New Mexico Potash Corp., of Memphis, TN, alleging that an industry in the United States is materially injured and threatened with material injury by reason of LTFV imports of potassium chloride from Canada. Accordingly, effective February 11, 1987, the Commission instituted preliminary antidumping investigation No. 731-TA-374 (Preliminary).

Notice of the institution of the Commission's investigation and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade

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1/ The record is defined in sec. 207.2(i) of the Commission's Rules of Practice and Procedure (19 CFR § 207.2(i)).

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Commission, Washington, DC, and by publishing the notice in the Federal Register of February 19, 1987 (52 F.R. 5202). The conference was held in Washington, DC, on March 3, 1987, and all persons who requested the opportunity were permitted to appear in person or by counsel.

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VIEWS OF THE COMMISSION

We determine that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of Canadian potassium chloride that are allegedly sold at less than fair value (LTFV). Our determination is based on the poor performance of the domestic industry, the substantial and increasing market penetration of Canadian imports, and the apparent adverse impact of imports on prices for the domestic product during the period of investigation.

The domestic industry

The statutory framework under which the Commission conducts antidumping and countervailing duty investigations requires it first to determine the domestic industry against which to assess the impact of allegedly unfair imports. Section 771(4)(A) of the Tariff Act of 1930 defines the term "industry" as "the domestic producers as a whole of a like product or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product." 1/ "Like product" is in turn defined as "a product which is like, or in the absence of like, most similar in characteristics and uses with the article subject to an investigation...." 2/

The imported and domestic product in this investigation is potassium chloride, KCl, also known as muriate of potash. Potassium chloride is a chemical compound that is extracted from mineral deposits and purified. It is

1/ 19 U.S.C. § 1677(4)(A).
2/ 19 U.S.C. § 1677(10).

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the chief source of potassium fertilizer. [3/] Potassium chloride is refined into a number of grades, the chief ones being granular, coarse, standard, and soluble. The granular, coarse and standard grades are approximately 95 percent pure, and differ from one another only in particle size. They are suitable for blending with other fertilizers. In order to ensure a homogeneous mixture of solid fertilizer, particles of nearly equal size must be blended together. The soluble grade is approximately 98 percent pure, containing fewer iron clays than the other three grades, and is thus suitable for use in liquid fertilizer, in which the presence of impurities tends to clog the machinery used to spray fields. There is also production of a small amount of chemical grade, which is even more highly refined; it is used in the manufacture of chemicals for use primarily in the chemical and ceramic industries. [4/] Canada exports standard, granular, coarse, and soluble grades of potassium chloride to the United States. [5/]

The domestically produced grades are identical to the comparable imported grades under investigation [6/] and are, thus, "like" the imported product. In prior Commission decisions involving potassium chloride, the Commission defined the like product as potassium chloride, including all grades. [7/]

Two of the respondents in this investigation urge that the Commission find more than one like product based on the different grades of potassium

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3/ Approximately 93 percent of the potassium chloride consumed in the United States is used as fertilizer, either blended with other fertilizers, or directly applied. Report of the Commission (Report) at A-2. The remaining 7 percent is used to make chemical compounds essential in the manufacture of glass, matches, soap, medicines, detergents, insecticides, chinaware, solid rocket fuel, and animal feed. Id.

4/ For a complete description of the unique characteristics of these grades, see Report at A-2 A-3.

5/ Id.

6/ Id.

7/ Potassium Chloride from the U.S.S.R., Inv. No. 731-TA-187 (Final), USITC Pub. No. 1656 at 3-4, and Potassium Chloride from Israel and Spain, Invs. Nos. 303-TA-15 and 701-TA-213 (Final), USITC Pub. No. 1596 at 3-4 (1984).

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chloride. Respondent PPG Industries urges the Commission to exclude soluble potassium chloride from the definition of like product because, compared to other grades, it is mined by a different process, is purer, has a higher percentage of potassium oxide, differs in color, is composed of smaller particles, and is used as a liquid, rather than a dry fertilizer. Respondent Central Canada Potash urges that the Commission find four like products, corresponding to the four grades of potassium chloride, because the grades are not interchangeable.

We find one like product -- potassium chloride -- for purposes of this preliminary investigation. The Commission's decision regarding like product is based on an analysis of characteristics and uses. The end use of more than 90 percent of all potassium chloride, regardless of grade, is fertilizer. The distinctions among grades are based on particle size and the presence of impurities, such as iron. All the different grades of potassium chloride have the same chemical formula and are produced from the same basic stock using similar production processes. 8/

Accordingly, we conclude that the appropriate domestic industry is composed of all domestic producers of potassium chloride. There are seven producers operating in the United States. 9/ 10/ More than 80 percent of

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8/ Mining and production processes may differ based on location and the nature of the mineral deposit. See Report at A-3-A-4 for a description of the production process.

9/ For the names of the producers and the type and location of each operation see Report at A-7, Table 2.

10/ We note that one domestic producer, International Minerals and Chemicals Corporation is also an importer of potassium chloride from Canada, and thus the issue arises whether IMC should be excluded from the domestic industry under the "related parties" provision. 19 U.S.C. § 1677(4)(B). We have not excluded IMC from the domestic industry because inclusion of their data does not alter the trends of the domestic industry. IMC's importation is primarily due to the location and capacity of its domestic reserves, and there is no evidence at this time that IMC's domestic operations receive a competitive benefit from the allegedly unfairly traded imports.

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domestic production occurs in New Mexico. 11/

Condition of the domestic industry

In assessing the condition of the domestic industry the Commission considers, among other factors, consumption, production, capacity, capacity utilization, inventories, employment, wages, sales, and profitability. 12/ We note that the performance of the domestic industry producing potassium chloride is closely related to the demand for fertilizer.

Apparent U.S. consumption of potassium chloride fell from 10.3 million short tons in 1984 to 8.4 million short tons in 1986, a decline of just over 19 percent. 13/ The drop in consumption corresponds roughly to the financial difficulties experienced by the agricultural industry in the 1980s. In the short run, farmers may reduce their costs by using less fertilizer since potassium chloride is retained in the soil for two to three years after application. However, in the long run, application of potassium chloride is needed to maintain the quality and quantity of the crops. 14/ Domestic production declined substantially during the period of investigation, from 2.4 million short tons in 1984 to 1.8 million short tons in 1986, a decline of nearly 26 percent. 15/ With domestic capacity remaining relatively constant at about 2.6 million short tons, 16/ capacity utilization followed the trend of production, decreasing from 90.2 percent in 1984 to 67.1 percent in 1986. 17/

11/ Report at A-6.
12/ 19 U.S.C. § 1677(7)(c)(iii).
13/ Report at A-10, Table 4.
14/ Id. at A-10.
15/ The decline in domestic production during the period of investigation is a continuation of the decline in domestic production of potassium chloride that has occurred over the past 24 years. Id. at A-15, Figure 3.
16/ Id. at A-13 and A-14, Table 5.
17/ Id. at A-14, Table 5.

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U.S. producers' total shipments followed the same trend as domestic production, with combined domestic and export shipments declining by 35 percent. 18/ However, domestic shipments fell by a much steeper 55 percent from 1984 to 1986. In absolute terms, they declined from 1.6 million short tons in 1984 to 1.0 million short tons in 1985 and then to 732,000 short tons in 1986. Export shipments increased from 711,000 short tons in 1984 to 810,000 short tons in 1986. Domestic producers' inventories increased from 16.8 percent of shipments in 1984 to 24.2 percent in 1985 and further increased to 35.0 percent in 1986. 19/ Employment in the domestic industry decreased by 23 percent from 1984 to 1986, 20/ while hours worked by production and related workers, their wages, and their total compensation also decreased significantly. 21/

U.S. producers' net sales of potassium chloride followed production trends, falling from $157.6 million in 1984 to $77.8 million in 1986 — or by 51 percent. 22/ Operating losses were reported for every year of the period of investigation, rising from $2.5 million in 1984 to $17.0 million in 1985, before recovering somewhat at $8.6 million in 1986. 23/

The condition of the domestic industry during the investigatory period reflected the overall decline the domestic industry has been experiencing over the past decade. Based on the trends during the period of investigation, we find a reasonable indication that the domestic industry is materially injured.

18/ Id. at A-16 and A-17, Table 6.
19/ Id. at A-19, Table 8.
20/ Id. at A-20 and A-21, Table 9.
21/ Id.
22/ Id. at A-23.
23/ Id. at A-22 and A-23, Table 10.

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Reasonable indication of material injury by reason of alleged LTFV imports [24/]

In determining whether there is a reasonable indication that a domestic industry is materially injured "by reason of imports," the Commission is to consider, among other factors, the volume of imports of the product in question and the effect of the imports on prices and on U.S. producers. [25/] Congress has also instructed the Commission to consider factors indicating that the injury is not by reason of the subject imports. [26/]

Among the factors useful to our analysis are the substantial and increasing import penetration levels, the low levels of capacity utilization in the domestic industry, and the apparent fungibility [27/] and price sensitivity of potassium chloride. [28/] Imports from Canada as a share of

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24/ Chairman Liebeler does not join her colleagues on this portion of the opinion. See her Additional Views on reasonable indication of material injury by reason of alleged LTFV imports.

25/ Section 771(7)(A), (B), and (C); 19 U.S.C. § 1677(7)(A), (B), and (C).

26/ "Of course, in examining the overall injury being experienced by a domestic industry, the ITC will take into account evidence presented to it which demonstrates that the harm attributed by the petitioner to the subsidized or dumped imports is attributable to such other factors." H.R. Rep. No. 317, 96th Cong., 1st Sess 47 (1979).

27/ Vice Chairman Brunsdale notes that there are price differences between imported and domestically-produced products and, when such differences are observed, normally there are differences between the products. Memorandum EC-J-010 (January 7, 1986) at 11. Thus, imported and domestically-produced potassium chloride are not perfect substitutes.

28/ Vice Chairman Brunsdale believes that the magnitude of the dumping margin is one factor, among others, that may be considered in determining whether LTFV imports are a cause of material injury. The margin alleged by the petitioner, 42.86 percent, is sufficiently large to support an affirmative determination in this investigation. For a discussion of the Vice Chairman's views on the relevance of dumping margins to causation analysis, see, Heavy-Walled Rectangular Welded Carbon Steel Pipes and Tubes from Canada, Inv. 731-TA-254 (Final), USITC Pub. 1808 at 13-14 (1986) (Views of Chairwoman Stern, Vice Chairman Liebeler and Commissioner Brunsdale). Note, however, that large dumping margins are not by themselves sufficient to reach an affirmative decision. See, Certain Ethyl Alcohol from Brazil, Inv. 701-TA-239 (Final), USITC Pub. 1818 at 15-16 (1986) (Views of Chairwoman Stern, Vice Chairman Liebeler, Commissioner Rohr, and Commissioner Brunsdale).

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domestic consumption are not only substantial, but they increased over the period of investigation from 76.7 percent in 1984 to 82.6 percent in 1985 and then to 84.3 percent in 1986. 29/ 30/ The domestic industry is especially sensitive to increases in import penetration levels considering its low level of capacity utilization.

Imports from Canada as a share of consumption increased significantly even though apparent U.S. consumption dropped by 19 percent during the investigatory period. 31/ That is, absolute volumes of imports of Canadian potassium chloride decreased by 11 percent, 32/ whereas U.S. producers' shipments plummeted by 55 percent. 33/ In addition, U.S. producers' shipments as a share of consumption declined steadily from 16.4 percent in 1984 to 12.0 percent in 1985 to 9.8 percent in 1986, while imports from all other sources declined by only 1 percent during the investigatory period. 34/ Thus, the Canadian producers increased their U.S. market share at the expense of the domestic industry.

We note, however, that other factors may also be significant in explaining the decreased shipments of the domestic industry. 35/ Since almost all potassium chloride is used as fertilizer, domestic consumption depends on the farm economy -- an economy that performed poorly in the

29/ Report at A-36.

30/ The Canadian producers alleged that their increase in market share is the result of a 30 percent increase in market share in the southeastern United States. That increase is allegedly attributable to a shift in freight advantage from the domestic producers to the Canadian producers. In any final investigation, the Commission will examine this allegation.

31/ Report at A-10-A-11.

32/ Id. at A-33.

33/ Id. at A-16.

34/ Id. at A-36.

35/ Commissioner Eckes does not join the discussion in this paragraph.

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1980s. 36/ In previous Commission investigations on potassium chloride, 37/ the Commission cited declining domestic reserves as a factor in its causation analysis and has noted that domestic reserves are dwarfed by those in Canada. U.S. capacity to produce potassium chloride has declined in recent years. 38/ and will continue to decline as domestic reserves are depleted. 39/ 40/ Mirroring this trend, the Canadian share of the U.S. market has been increasing and will continue to increase. We also note, however, that even though domestic reserves are declining, the domestic industry is operating at low levels of capacity utilization. In any final investigation, these factors will be further examined.

The Commission obtained price data for coarse and granular grades of potassium chloride. Prices for both grades of domestically produced and imported Canadian potassium chloride declined during the period of investigation, 41/ but U.S. producers' prices declined faster. In the majority of comparisons of the net delivered selling price for coarse and granular grades of domestic and imported Canadian potassium chloride the latter undersold the domestically produced product. 42/ 43/

36/ Report at A-10.

37/ See Potassium Chloride from the U.S.S.R., Inv. No. 731-TA-187 (Final), USITC Pub. 1656 (1985); Potassium Chloride from Israel and Spain, Inv. Nos. 303-TA-15 and 701-TA-213 (Final), USITC Pub. 1596 (1984).

38/ Report at A-14, Table 5.

39/ Id. at A-14.

40/ There has been no similar decline in Canadian production capacity, but rather an increase. Id. at A-30.

41/ Id. at A-38 and A-39, Table 18.

42/ Id. at A-39-A-41, Tables 19 and 20.

43/ Vice Chairman Brunsdale believes that evidence of underselling is not ordinarily probative on the issue of whether imports are a cause of material injury to a domestic industry. See Top-of-the-Stove Stainless Steel Cooking Ware from the Republic of Korea and Taiwan, Invs. 701-TA-267-268, and 731-TA-304-305 (Final), USITC Pub. 1936 at 24, n.22 (1987) (Dissenting Views of Vice Chairman Anne E. Brunsdale and Commissioner Paula Stern). The Vice Chairman does not join her colleagues in the remainder of this opinion.

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Petitioners requested that we consider the effect of imports from Canada on domestic prices in the West and Southwest markets. 44/ In the absence of a regional industry analysis we must examine the domestic industry on a nationwide basis in determining whether material injury exists, 45/ however, we can analyze the effects of the subject imports according to geographic regions. Since transportation costs are a significant portion of the final price, we have compared delivered prices in four regions -- the Midwest, the upper Midwest, the West, and Georgia and Tennessee -- and found a general pattern of underselling.

In the majority of the thirty-three delivered price comparisons in the Midwest and upper Midwest markets for both coarse and granular grade potassium chloride, 46/ the Canadian product undersold domestically produced potassium chloride. 47/ 48/ In the two price comparisons in the Western market, coarse grade Canadian potassium chloride oversold the domestically produced product. Similarly, coarse grade Canadian potassium chloride sold at prices higher than the corresponding domestic product in Georgia. 49/ However, in Tennessee,

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44/ Petitioners' Post Conference Brief at 11-12.

45/ Petitioners did not expressly argue that the Commission apply a regional industry analysis. It does not appear that regional industry analysis is appropriate in this investigation because the criteria set forth in section 771(4)(C) of the Tariff Act of 1930 are not satisfied. 19 U.S.C. § 1677(4)(C).

46/ The Midwest accounts for 66 percent of U.S. consumption of potassium chloride. Report at A-10.

47/ Report at A-39-A-41, Table 19 and Table 20.

48/ We note that there is some evidence that the domestic industry may not be able to compete with imports from Canada in the Midwest due to high transportation costs. Id. at A-41-A 45. Several U.S. producers stated in their questionnaire responses that they have closed their warehouses in the Midwest. Id. However, two domestic producers continue to sell potassium chloride in the Midwest. In any final investigation, relative transportation costs will be further considered.

49/ Report at A-41, Table 19.

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granular grade Canadian potassium chloride undersold the corresponding domestic product by an average of 2 percent. 50/ The Commission also contacted purchasers of domestic and imported potassium chloride, many of whom said that price is a significant determining factor in their purchases of potassium chloride. 51/

Finally, given the apparent fungibility and price sensitivity of the product, the substantial shift in market share in favor of Canadian imports over domestic product during 1984-1986 suggests aggressive pricing and marketing of those imports.

For these reasons, we find a reasonable indication that the domestic potassium chloride industry is materially injured by reason of allegedly LTFV imports from Canada.

50/ Id. at A-41, Table 20.
51/ Id. at A-47 through A-51.

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VIEWS OF CHAIRMAN LIEBELER

Potassium Chloride from Canada
Inv. No. 731-TA-374 (Preliminary)

I determine that there is a reasonable indication than an industry in the United States is materially injured by reason of imports of potassium chloride from Canada which are allegedly being sold at less than fair value.

I concur with the majority in its definitions of the like product and the domestic industry, and their discussion of the condition of the industry. Because my views on causation differ from those of the majority, I offer these additional views.

Material Injury by Reason of Imports

In order for a domestic industry to prevail in a preliminary investigation, the Commission must determine that there is a reasonable indication that the dumped or subsidized imports cause or threaten to cause material injury to the domestic industry producing the like product. The Commission must determine whether the domestic industry producing the like product is materially

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injured or is threatened with material injury, and whether any injury or threat thereof is by reason of the dumped or subsidized imports. Only if the Commission finds a reasonable indication of both injury and causation, will it make an affirmative determination in the investigation.

Before analyzing the data, however, the first question is whether the statute is clear or whether one must resort to the legislative history in order to interpret the relevant sections of the antidumping law. The accepted rule of statutory construction is that a statute, clear and unambiguous on its face, need not and cannot be interpreted using secondary sources. Only statutes that are of doubtful meaning are subject to such statutory interpretation.[1]

The statutory language used for both parts of the two-part analysis is ambiguous. "Material injury" is defined as "harm which is not inconsequential, immaterial,

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[1] C. Sands, Sutherland Statutory Construction, § 45.02 (4th ed. 1985).

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or unimportant."[2] As for the causation test, "by reason of" lends itself to no easy interpretation, and has been the subject of much debate by past and present commissioners. Clearly, well-informed persons may differ as to the interpretation of the causation and material injury sections of title VII. Therefore, the legislative history becomes helpful in interpreting title VII.

The ambiguity arises in part because it is clear that the presence in the United States of additional foreign supply will always make the domestic industry worse off. Any time a foreign producer exports products to the United States, the increase in supply, ceteris paribus, must result in a lower price of the product than would otherwise prevail. If a downward effect on price, accompanied by a Department of Commerce dumping or subsidy finding and a Commission finding that financial indicators were down were all that were required for an affirmative determination, there would be no need to inquire further into causation.

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[2] 19 U.S.C. § 1677(7)(A)(1980).

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But the legislative history shows that the mere presence of LTFV imports is not sufficient to establish causation. In the legislative history to the Trade Agreements Acts of 1979, Congress stated:

> [T]he ITC will consider information which indicates that harm is caused by factors other than the less-than-fair-value imports.[3]

The Senate Finance Committee emphasized the need for an exhaustive causation analysis, stating, "the Commission must satisfy itself that, in light of all the information presented, there is a sufficient causal link between the less-than-fair-value imports and the requisite injury."[4]

The Finance Committee acknowledged that the causation analysis would not be easy: "The determination of the ITC with respect to causation, is under current law, and will be, under section 735, complex and difficult, and is matter for the judgment of the ITC."[5] Since the domestic industry is no doubt worse off by the presence of

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[3] Report on the Trade Agreements Act of 1979, S. Rep. No. 249, 96th Cong. 1st Sess. 75 (1979).

[4] Id.

[5] Id.

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any imports (whether LTFV or fairly traded) and Congress has directed that this is not enough upon which to base an affirmative determination, the Commission must delve further to find what condition Congress has attempted to remedy.

In the legislative history to the 1974 Act, the Senate Finance Committee stated:

> This Act is not a 'protectionist' statute designed to bar or restrict U.S. imports; rather, it is a statute designed to free U.S. imports from unfair price discrimination practices. * * * The Antidumping Act is designed to discourage and prevent foreign suppliers from using unfair price discrimination practices to the detriment of a United States industry.[6]

Thus, the focus of the analysis must be on what constitutes unfair price discrimination and what harm results therefrom:

> [T]he Antidumping Act does not proscribe transactions which involve selling an imported product at a price which is not lower than that needed to make the product competitive in the U.S. market, even though the price of the imported product is lower than its home market price.[7]

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[6] Trade Reform Act of 1974, S. Rep. 1298, 93rd Cong. 2d Sess. 179.

[7] Id.

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This "complex and difficult" judgment by the Commission is aided greatly by the use of economic and financial analysis. One of the most important assumptions of traditional microeconomic theory is that firms attempt to maximize profits.[8] Congress was obviously familiar with the economist's tools: "[I]mporters as prudent businessmen dealing fairly would be interested in maximizing profits by selling at prices as high as the U.S. market would bear."[9]

An assertion of unfair price discrimination should be accompanied by a factual record that can support such a conclusion. In accord with economic theory and the legislative history, foreign firms should be presumed to behave rationally. Therefore, if the factual setting in which the unfair imports occur does not support any gain to be had by unfair price discrimination, it is reasonable

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8 See, e.g., P. Samuelson & W. Nordhaus, Economics 42-45 (12th ed. 1985); W. Nicholson, Intermediate Microeconomics and Its Application 7 (3rd ed. 1983).

9 Trade Reform Act of 1974, S. Rep. 1298, 93rd Cong. 2d Sess. 179.

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to conclude that any injury or threat of injury to the domestic industry is not "by reason of" such imports.

In many cases unfair price discrimination by a competitor would be irrational. In general, it is not rational to charge a price below that necessary to sell one's product. In certain circumstances, a firm may try to capture a sufficient market share to be able to raise its price in the future. To move from a position where the firm has no market power to a position where the firm has such power, the firm may lower its price below that which is necessary to meet competition. It is this condition which Congress must have meant when it charged us "to discourage and prevent foreign suppliers from using unfair price discrimination practices to the detriment of a United States industry."[10]

In Certain Red Raspberries from Canada, I set forth a framework for examining what factual setting would merit an affirmative finding under the law interpreted in light of the cited legislative history.[11]

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[10] Trade Reform Act of 1974, S. Rep. 1298, 93rd Cong. 2d Sess. 179.

[11] Inv. No. 731-TA-196 (Final), USITC Pub. 1680, at 11-19 (1985) (Additional Views of Vice Chairman Liebeler).

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> The stronger the evidence of the following . . . the more likely that an affirmative determination will be made: (1) large and increasing market share, (2) high dumping margins, (3) homogeneous products, (4) declining prices and (5) barriers to entry to other foreign producers (low elasticity of supply of other imports).[12]

The statute requires the Commission to examine the volume of imports, the effect of imports on prices, and the general impact of imports on domestic producers.[13] The legislative history provides some guidance for applying these criteria. The factors incorporate both the statutory criteria and the guidance provided by the legislative history.

Causation analysis

Examining import penetration data is relevant because unfair price discrimination has as its goal, and cannot take place in the absence of, market power. Import penetration from Canada was high and increasing over the period. In 1984, Canada imports, as a share of apparent

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12 Id. at 16.

13 19 U.S.C. § 1677(7)(B)-(C) (1980 & cum. supp. 1985).

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consumption, were 76.7 percent. This ratio increased to 82.6 in 1985, and 84.3 in 1986. Import penetration data is not inconsistent with a finding of unfair price discrimination.

The second factor is a high margin of dumping or subsidy. The higher the margin, ceteris paribus, the more likely it is that the product is being sold below the competitive price[14] and the more likely it is that the domestic producers will be adversely affected. In a preliminary investigation, the Commerce Department has not yet had time to calculate any margins. I therefore typically rely on the margins alleged by petitioner. In this case, petitioners allege a dumping margin of 42.86 percent.[15] This margin is moderately high.

The third factor is the homogeneity of the products. The more homogeneous the products are, the greater will be the effect of any allegedly unfair practice on domestic producers. Potassium chloride from Canada and the United

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[14] See text accompanying note 8, supra.

[15] Report at A-4.

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States are close substitutes, although some purchasers have stated that Canadian potash is of higher quality than domestic potash, and vice versa.[16]

As to the fourth factor, domestic producers might choose to lower their prices to prevent loss of market share. Domestic prices generally fell during 1985-1986.[17] These pricing data are not inconsistent with a finding of unfair price discrimination.

The fifth factor is barriers to entry (foreign supply elasticity). If there are barriers to entry (or low foreign elasticity of supply) it is more likely that a producer can gain market power. Imports from Canada accounted for over 90 percent of imports during the period of investigation. Canada also accounts for nearly half of the worlds' reserves. Because of the historical dominance of Canada in the U.S. market, and the exhaustible resource nature of the product, I conclude that barriers to entry are high.

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16 Report at A-47-51.

17 Report at Table 18.

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These factors must be balanced in each case to reach a sound determination. In this case, all the factors point toward an affirmative preliminary determination. I therefore determine that there is a reasonable indication than an industry in the United States is materially injured by reason of imports of potassium chloride from Canada which are allegedly being sold at less than fair value.[18]

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[18] One aspect of this case that bears mentioning is that most of the facts presented are also consistent with a U.S. industry experiencing a decline in its resource base. The United States possesses only 1 percent of world reserves for potash. As U.S. reserves shrink as a proportion of total world supply, this industry will naturally contract and imports as a percentage of apparent consumption will increase. See, e.g., Potassium Chloride from the U.S.S.R., Inv. No. 731-TA-187 (final), at A-25 (1985); Post-Conference Brief on behalf of PPG Industries (March 6, 1987). But see Post-Conference Brief on behalf of Petitioners. I will consider this argument further if this investigation proceeds to a final determination.

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INFORMATION OBTAINED IN THE INVESTIGATION

Introduction

On February 10, 1987, counsel for Lundberg Industries, Ltd. and the New Mexico Potash Corp. filed an antidumping petition with the U.S. International Trade Commission and the U.S. Department of Commerce. The petition alleges that an industry in the United States is materially injured and is threatened with material injury by reason of imports from Canada of potassium chloride, provided for in item 480.50 of the Tariff Schedules of the United States (TSUS), which are allegedly sold at less than fair value (LTFV). Accordingly, the Commission instituted a preliminary investigation under the provisions of the Tariff Act of 1930 to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports of such merchandise into the United States. The statute directs that the Commission make its determination within 45 days after its receipt of the petition, or in this case, by March 27, 1987.

Notice of the institution of the Commission's investigation and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register of February 19, 1987 (52 F.R. 5202). 1/ The conference was held in Washington, DC, on March 3, 1987. 2/

Other Investigations Concerning Potassium Chloride

In March 1985, the Commission determined that an industry in the United States was not being materially injured or threatened with material injury by reason of imports of potassium chloride from the U.S.S.R. that were found to have been sold at LTFV by the Department of Commerce (50 F.R. 4562). 3/ This determination was the final decision resulting from antidumping and countervailing duty petitions filed in March 1984, by counsel for AMAX Chemical, Inc., and Kerr-McGee Chemical Corp., concerning imports of potassium chloride from four countries. The petitions charged that an industry in the United States was materially injured, and threatened with material injury, by reason of imports from East Germany, Israel, Spain, and the U.S.S.R. allegedly being sold at LTFV and by reason of imports from Israel and Spain upon which subsidies were allegedly being paid. In November 1984, the Commission determined that an industry in the United States was not materially injured or threatened with material injury by reason of subsidized imports of potassium chloride from Israel and Spain (49 F.R. 44562). 4/ Additionally, in November 1984, the petitioners withdrew their antidumping petition with respect to

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1/ Copies of the Commission's and Commerce's notices are presented in app. A.

2/ A list of witnesses appearing at the conference is presented in app. B.

3/ Potassium Chloride From the U.S.S.R.: Determination of the Commission in Investigation No. 731-TA-187 (Final). . ., USITC Publication 1656, March 1985.

4/ Potassium Chloride From Israel and Spain: Determination of the Commission in Investigations Nos. 303-TA-15 and 701-TA-213 (Final). . ., USITC Publication 1596, November 1984.

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imports of potassium chloride from Spain (49 F.R. 46818). In January 1985, Commerce found no sales at LTFV from East Germany and de minimis (0.0008 percent) LTFV margins on imports from Israel (50 F.R. 4559).

In November 1969, the Commission determined that an industry in the United States was being injured by reason of imports of potassium chloride from Canada that were being or were likely to be sold at LTFV. The Department of the Treasury published a finding of dumping in the Federal Register of December 19, 1969. By 1981, all Canadian producers and exporters, except Texasgulf, Inc., had been excluded by Treasury from the dumping finding after Treasury determined these firms had not made any sales at LTFV for a 3-year period and it had received assurances from each firm that future sales of potassium chloride to the United States would not be made at LTFV. In April 1981, pursuant to a petition filed by Texasgulf, the Commission determined that an industry in the United States would not be materially injured, or threatened with material injury, by reason of imports of potassium chloride from Canada if the dumping order were to be modified or revoked. 1/ Accordingly, in June 1981, Commerce published a notice in the Federal Register revoking the dumping order. The revocation of the dumping order, however, does not affect the assurances that had been given by the Canadian producers not to sell potassium chloride for export to the United States at LTFV.

Description and Uses

Potassium chloride (KCl), also known as muriate of potash, is the chief source of potassium fertilizer applied to fields in the United States. Approximately 93 percent of the potassium chloride consumed in the United States is used in fertilizer; the rest is used to make chemical compounds essential to the manufacture of glass, matches, soaps, medicines, detergents, insecticides, chinaware, solid rocket fuel, and animal feed.

Potash refers to a number of potassium salts used as fertilizers. Potassium chloride, the product under investigation, accounts for approximately 97 percent of all potash fertilizers consumed in the United States and worldwide. For chloride-sensitive crops, a sulfate of potash (either potassium sulfate or potassium magnesium sulfate) is used.

Potassium is one of the three key chemical elements used to promote plant growth; the other two are nitrogen and phosphorus. Potassium aids in the synthesis of starch and sugar, stiffens straw in cereal grains, promotes root growth, and enables the plant to better withstand disease and adverse conditions of climate. About 85 percent of the potassium applied to fields in the United States is in the form of potash; the remainder of the potassium nutrient is added to the soil in the form of cereal straw and manure.

Potassium chloride is produced in a number of grades. The major grades and their uses are shown in table 1.

1/ Potassium Chloride From Canada: Determination of the Commission in Investigation No. 751-TA-3 . . ., USITC Publication 1137, April 1981.

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Table 1.--Potassium chloride: U.S. consumption, 1/ by uses and by grades, 1983 and 1986

(In percent)

Grade	1983 Agricultural use	1983 Industrial use	1983 Total	1986 Agricultural use	1986 Industrial use	1986 Total
Granular.....	30.1	-	30.1	37.1	-	37.1
Coarse.....	47.2	-	47.2	41.4	-	41.4
Standard 2/..	7.8	3.8	11.6	7.0	5.0	12.0
Soluble.....	8.9	2.2	11.1	7.4	2.1	9.5
Total....	94.0	6.0	100.0	92.9	7.1	100.0

1/ Data are for U.S. and Canadian producers' shipments, which accounted for 94 percent of U.S. consumption in 1986.
2/ Includes chemical grade. Industrial use of chemical grade accounted for about 1 percent of U.S. potassium chloride consumption in 1986.

Source: Derived from statistics published by the Potash & Phosphate Institute.

The granular, coarse, and standard grades are approximately 95 percent pure and may contain a minute amount of iron, which gives the product a pink tint. These grades, which differ from one another only in particle size, are suitable for blending with other solid fertilizers. To insure a homogeneous mixture of solid fertilizer, particles of nearly equal sizes must be blended together. These three grades are not used in liquid fertilizers because the trace of iron-bearing clay in the product tends to clog the farm machinery used to spray the fields. However, a fourth grade, the soluble grade, is approximately 98 percent pure, contains less iron clays, and is consequently suitable for use in liquid fertilizer. The chemical grade of potassium chloride is even more highly refined; it is used in the manufacture of chemicals for use primarily in the chemical and ceramic industries. In addition, small quantities of standard and soluble grades of potassium chloride are used for industrial purposes.

Importers of potassium chloride from Canada sell standard, granular, coarse, and soluble grades of potassium chloride in the United States. The U.S.-produced grades are identical to the imported grades under investigation.

The industry frequently expresses the potassium content of potassium chloride in terms of K_2O (potassium oxide). Commercial potassium chloride is generally about 60 percent K_2O. Thus, 1,000 short tons of potassium chloride product is the equivalent of 600 short tons K_2O. In this report in order to estimate quantities of potassium chloride, data originally expressed in terms of K_2O content have been divided by 0.6.

Production process

Most potassium chloride in the United States exists in underground deposits; approximately 80 percent is exploited by conventional shaft-mining techniques. Solution mining, another method of extracting potassium chloride

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from bedded deposits, is especially suited to deposits that are 4,000 feet or more underground or which are too irregular to make shaft mining economical. In this method, water is injected through wells into the deposit to dissolve the salts, and a brine solution containing potassium chloride is withdrawn from nearby wells. One mine owned by Texasgulf in Utah is operated with this technique and accounted for about 8 percent of U.S. production capacity in 1986.

A third production method, extraction from surface and subsurface brines, is used in the United States at the Bonneville salt flats in Utah and at Searles Lake in California. The two U.S. companies, Kaiser and Kerr-McGee, that produce potassium chloride by this method accounted for about 11 percent of U.S. production capacity in 1986. 1/

After recovery, all ore is processed into marketable grades of potassium chloride at the minesite. The beneficiation process involves several steps, which may include crushing, flotation, sizing, compaction, and screening at shaft mine sites. In addition, solution-mined potassium chloride must be recrystallized, and surface and subsurface brines must be evaporated. The wet-process product is dried and sized and is then ready for sale. Figure 1 illustrates the potassium chloride production process.

U.S. tariff treatment

Imports of potassium chloride are classified in item 480.50 of the Tariff Schedules of the United States. These imports have been free of duty since 1930.

Nature and Extent of Alleged LTFV Sales

The petitioners allege that most recent U.S. sales of imports of potassium chloride from Canada have been made at prices below production costs. Consequently, they contend that the most appropriate means of determining the foreign-market value of such merchandise is by using a constructed value approach. For this purpose, petitioners allege that the best information available regarding the cost of materials is an estimate recently calculated by the U.S. Department of the Interior's Bureau of Mines. Based on the constructed value method, petitioners allege a dumping margin of 42.86 percent, or approximately $12 per metric ton in 1986.

1/ Kaiser reopened its Wendover, UT, facility early in 1985 after a 2-year shutdown caused by flooding at the Great Salt Lake.

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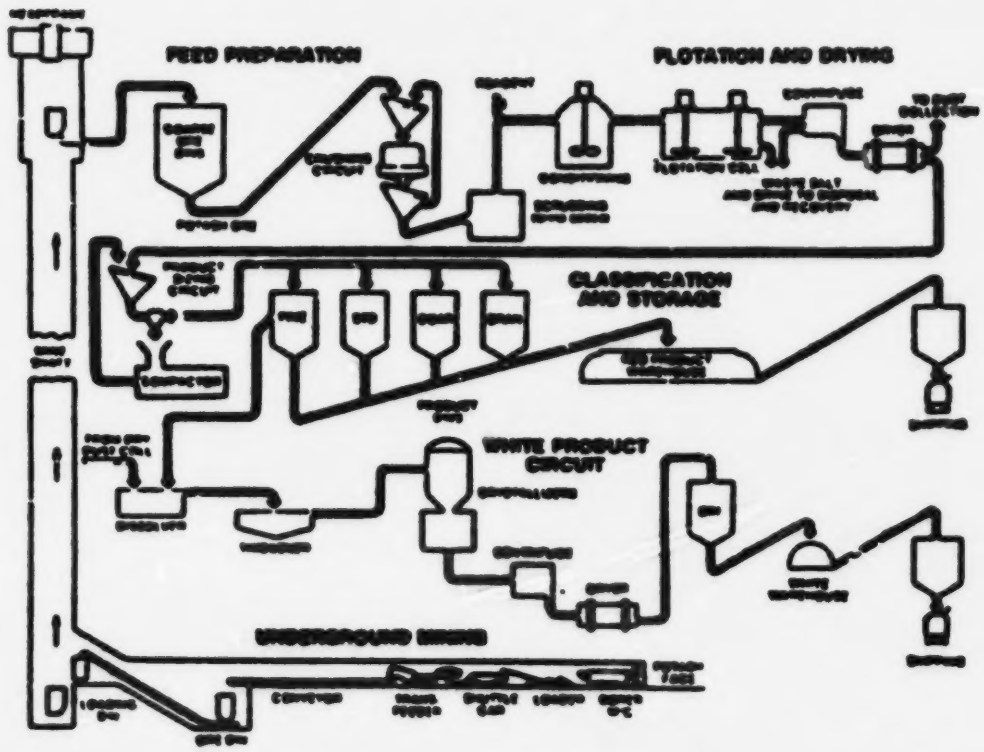
Figure 1.--Flow chart of the potassium chloride production process



Source: Texasgulf, Inc.

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U.S. Producers

The names and production locations of each of the seven U.S. firms that have produced potassium chloride in recent years are presented in table 2. There are four production sites in New Mexico, two in Utah, and one in California. New Mexico accounted for 81 percent of U.S. potassium chloride production capacity and 84 percent of U.S. production during 1986.

The two petitioning firms, New Mexico Potash Corp. and Lundberg Industries, Ltd., acquired their production facilities in 1985 and 1986, respectively. After the April 1985 acquisition of Kerr-McGee's Hobbs, NM, facility, New Mexico Potash Corp. reduced the facility's production rate ***. New Mexico Potash Corp. accounted for approximately 13 percent of U.S. production capacity during 1986. Lundberg Industries, Ltd. acquired the Carlsbad mine and refinery *** from Ideal Basic Industries, Potash Corp. of America (PCA) Division, in January 1986. The mine was closed for 3 months during transfer of ownership, ***, ***, and ***; it reopened in March 1986. The Lundberg mine was shut *** beginning in ***. Operations resumed in February 1987 ***. Lundberg accounted for approximately 28 percent of U.S. potassium chloride production capacity during 1986.

AMAX Potash Corp. *** in July 1985. ***. AMAX was shut down for *** during 1985 and resumption of operations in March 1986 ***. AMAX production staff *** . During 1986, AMAX accounted for approximately 32 percent of U.S. production capacity.

International Minerals and Chemical Corp. (IMC) reported *** in scheduled production at its Carlsbad, NM, facility during the period under investigation. The IMC mine accounted for approximately 8 percent of U.S. production capacity during 1986. IMC owns two potassium chloride mines in Saskatchewan, Canada. These mines, according to the Tennessee Valley Authority, have a total rated annual capacity of 3.2 million short tons KCl, or about 20 percent of Canadian production capacity during 1986.

Kaiser reopened its Wendover, UT, facility early in 1985 after being shut down by flooding at the Great Salt Lake in October 1983. Kaiser accounted for approximately 4 percent of U.S. KCl production capacity during 1986.

With the April 1985 sale of its Hobbs, NM, facility to New Mexico Potash Corp., Kerr-McGee reduced its share of U.S KCl production capacity from 19 percent during early 1985 to approximately 7 percent at yearend 1986. Kerr-McGee's remaining production facility is located at Trona, CA.

Texasgulf, which operates a production facility at Moab, UT, accounted for approximately 8 percent of U.S. production capacity in 1986. The firm stated that it has *** to remain competitive during the period of investigation. Texasgulf, which formerly owned a share of the Allan potassium chloride mine in Saskatchewan, Canada, ***.

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Table 2.--Potassium chloride: U.S. producers' plant locations, types of operations, years production began, shares of 1986 U.S. production, and parent firms 1/

Firm and location	Type of operation	Year production began	Share of 1986 U.S. Production	Parent
			Percent	
Amax Potash Corp. Carlsbad, NM.	Shaft mine	1952	***	AMAX, Inc.
International Minerals and Chemical Corp. Carlsbad, NM.	Shaft mine	1940	***	-
Kaiser Chemicals Wendover, UT.	Near surface-brines.	1933 2/	***	Kaiser Aluminum and Chemical Corp.
Kerr-McGee Chemical Corp., Trona, CA.	Brine wells	1917	***	Kerr-McGee Corp.
Lundberg Industries Ltd., Carlsbad, NM.	Shaft mine	1965 3/	***	Lundberg Industries, Ltd.
New Mexico Potash Corp., Hobbs, NM.	Shaft mine	1938 4/	***	Fermenta, AB Corp.
Texasgulf Chemical Co. Moab, UT.	Solution mine	1964	***	Societe Nationale Elf Aquitane, Inc.

1/ Mississippi Chemical Corp. (MCC) closed and mothballed a Carlsbad, NM, shaft mine capable of producing 420,000 short tons of potassium chloride per year in January 1983 because of market conditions. In June 1985, MCC subsequently purchased the closed National Potash Co. mine to acquire equipment and materiel.
2/ Kaiser reopened its Wendover facility early in 1985 after being shut down by flooding at the Great Salt Lake in October 1983.
3/ Lundberg Industries, Ltd., acquired the Carlsbad mine and refinery *** from Ideal Basic Industries, Potash Corp. of America Division, on Jan. 1, 1986.
4/ New Mexico Potash Corp. acquired Kerr-McGee's Hobbs facility on Apr. 8, 1985. Subsequently, Vertac, its parent company, was acquired by the Swedish company, Fermenta, through its subsidiary Cedar Chemicals, effective on Dec. 16, 1985, with actual transfer on June 27, 1986.

Source: Compiled from information obtained in response to questionnaires of the U.S. International Trade Commission and from the U.S. Bureau of Mines.

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In January 1983, Mississippi Chemical Corp. (MCC), because of market conditions, closed and mothballed a Carlsbad, NM, shaft mine capable of producing 420,000 short tons KCl per year. In June of 1985, MCC purchased the closed National Potash Co. to acquire equipment and materiel. MCC maintains a skeleton staff at the Carlsbad mines to keep equipment operational, and states that if potash prices were to rise they would reopen mine sites.

Potassium chloride is generally shipped by producers in bulk (train-carload, barge, or truckload) to farmers' cooperatives, bulk blenders, and other fertilizer companies. These companies have extensive fertilizer outlets that sell the product to distributors and directly to farmers. Three U.S. producers (or former producers) of potassium chloride--IMC, MCC, and Kaiser--are also large U.S. fertilizer producers and distributors.

U.S. Importers

Virtually all of the major Canadian producers of potassium chloride, or their U.S. affiliates, are importers of the product from Canada. IMC, Potash Corp. of Saskatchewan (PCS), PPG/Kalium (Kalium), and Cominco American, Ltd. (Cominco), accounted for more than 70 percent of imports of potassium chloride from Canada in 1986. In addition, U.S. firms, such as Cargill, Inc., and CF Industries, Inc., were importers during the period of investigation.

In the 1980's, and in large measure since 1984, many of the major importers have begun importing their product to owned or leased warehouses for distribution in the major market areas. 1/ IMC, PCS, Kalium, and Cominco have an extensive network of more than 90 warehouse locations in the 8 major consuming states in the upper Midwest. 2/ More recently, importers have begun to establish warehouse facilities in the southeastern United States. IMC, PCS, Kalium, and Cominco reported the ability to warehouse more than 1.3 million short tons of potassium chloride in the United States by the end of 1986.

In addition to the warehouses, *** and *** have established grading and screening operations in the United States at ***, and ***, respectively.

World Potash Reserves and Production Capacity

Known potash reserves are located in only 18 countries. According to the Bureau of Mines, Canada and the U.S.S.R. possess the largest potash reserves in the world, accounting for 48 percent and 33 percent, respectively, of all reserves (table 3). Reserves in the United States account for only 1 percent of worldwide reserves.

In 1986, according to the Tennessee Valley Authority, the countries with the largest capacities to produce potash were the U.S.S.R., which accounted

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1/ Additional information concerning importers' warehouses is presented in a subsequent section of this report.

2/ Illinois, Iowa, Ohio, Indiana, Minnesota, Wisconsin, Missouri, and Michigan.

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Table 3.--Potash: World reserves and capacity, by countries, 1986

Country	Reserves		Capacity	
	Quantity	Share of quantity	Quantity	Share of quantity 1/
	Million short tons KCl	Percent	Million short tons KCl	Percent
U.S.S.R.	5,511	32.8	23	33.5
Canada	8,084	48.1	22	31.6
East Germany	1,470	8.7	6	9.2
West Germany	919	5.5	6	8.0
United States	175	1.0	2	3.5
France	46	.3	3	4.8
Israel	2/	-	2	3.4
Spain	55	.3	2	2.3
Other	550	3.3	3	3.7
Total	16,810	100.0	69	100.0

1/ Computed from unrounded data.
2/ No estimate from the Bureau of Mines is available.

Source: Reserves data, the Bureau of Mines; capacity data, the Tennessee Valley Authority.

for approximately 34 percent of total capacity; Canada, with 32 percent; East Germany, with 9 percent; and West Germany, with 8 percent. The United States accounted for about 4 percent of total KCl capacity and France about 5 percent. Israel and Spain accounted for 3 percent and 2 percent of worldwide KCl capacity, respectively. According to Tennessee Valley Authority data, world capacity to produce potassium chloride increased 9 percent, from approximately 63 million short tons KCl in 1984 to approximately 69 million short tons KCl in 1986. Canadian potassium chloride capacity increased from 17 million short tons KCl in 1984 to 22 million short tons KCl in 1986, or by 25 percent. U.S. capacity decreased 18 percent during the corresponding period.

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The U.S. Market

U.S. consumption of potassium chloride fell from 10.3 million short tons in 1984 to 9.4 million short tons in 1985, representing a decrease of 9 percent (table 4 and fig. 2 1/). Consumption dropped further in 1986, to 8.4 million short tons, a decrease of 11 percent.

U.S. consumption of potassium chloride is dependent upon the demand for fertilizer. In the 1980's, that demand has been depressed by a number of factors. Exports of major crops have fallen by more than one-third, prices for farm land have dropped, and agriculture in general has experienced a period of financial difficulty. In 1983, demand was affected by Government-sponsored acreage reduction, paid diversion, and the Payment-In-Kind (PIK) programs. Nearly 800 million acres, 40 percent of total U.S. farmland, were idled during the year. In 1984, when acreage restrictions were relaxed, consumption of potassium chloride increased somewhat. Acreage set-asides were again established for 1985, and the overall farm economy continued to experience financial difficulties. High yearend 1985 stocks of grains and the poor performance of the farm economy further suppressed the 1986 spring fertilization. During times when cash receipts of farmers are low, one method of reducing costs is by decreasing fertilizer purchases. Thus, purchases of potassium chloride, which may be retained in the soil for 2 to 3 years after application, are frequently decreased. However, in the long run, application of potassium chloride must be resumed to maintain the quantity and quality of the crops.

Eight Midwestern farming States account for about 66 percent of U.S. consumption of potassium chloride, as shown below (in percent):

State	Share of 1986 consumption
Illinois	15
Iowa	10
Ohio	9
Indiana	9
Minnesota	7
Wisconsin	6
Missouri	5
Michigan	5
Total	66

In the 1980's, this market area has increasingly been serviced by product stored in warehouses located in the consuming area to permit more timely delivery to the customers. Previous practice had been to deliver product from minesites in both the United States and Canada. As indicated earlier in the report, importers of potassium chloride from Canada have established an

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1/ Fig. 2 is a stacked bar graph showing U.S. producers' domestic shipments and imports; thus, the top of each bar shows apparent U.S. consumption. During the entire 1962-86 period shown, apparent consumption grew at an average annual rate of 3.4 percent (on the basis of a fitted trend line). During 1979-86, however, apparent U.S. consumption decreased at an average annual (trend) rate of 3.9 percent.

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Table 4.--Potassium chloride: U.S. producers' shipments, imports, and apparent consumption, 1962-86

Period	Shipments			Imports	Apparent consumption	Domestic sales as a share of consumption
	Domestic	Export	Total			
	1,000 short tons KCl					Percent
1962.....	***	***	***	***	***	***
1963.....	***	***	***	***	***	***
1964.....	***	***	***	***	***	***
1965.....	***	***	***	***	***	***
1966.....	***	***	***	***	***	***
1967.....	***	***	***	***	***	***
1968.....	***	***	***	***	***	***
1969.....	***	***	***	***	***	***
1970.....	***	***	***	***	***	***
1971.....	***	***	***	***	***	***
1972.....	***	***	***	***	***	***
1973.....	***	***	***	***	***	***
1974.....	2,545	1,058	3,603	7,145	9,690	26.2
1975.....	1,837	1,110	2,947	6,131	7,968	23.0
1976.....	2,173	1,348	3,521	7,475	9,648	22.5
1977.....	2,090	1,432	3,521	8,206	10,295	20.3
1978.....	2,185	1,272	3,457	8,390	10,575	20.6
1979.....	2,615	995	3,610	9,275	11,890	21.9
1980.....	2,017	1,292	3,308	8,907	10,924	18.4
1981..... 1/	2,130	767	2,897	8,601	10,731	19.8
1982..... 1/	1,920	776	2,696	7,154	9,074	21.1
1983..... 1/	1,821	465	2,286	7,875	9,696	18.7
1984..... 1/	1,692	711	2,403	8,639	10,331	16.4
1985..... 1/	1,127	718	1,845	8,233	9,360	12.0
1986..... 1/	821	810	1,631	7,536	8,357	9.8

1/ Includes intracompany transfers.

Source: Data for 1962-73, SRI International; data for 1974-80, the Potash and Phosphate Institute; data for 1981-86, questionnaires of the U.S. International Trade Commission and official import statistics of the U.S. Department of Commerce.

Note.--Because of rounding, figures may not add to the totals shown.

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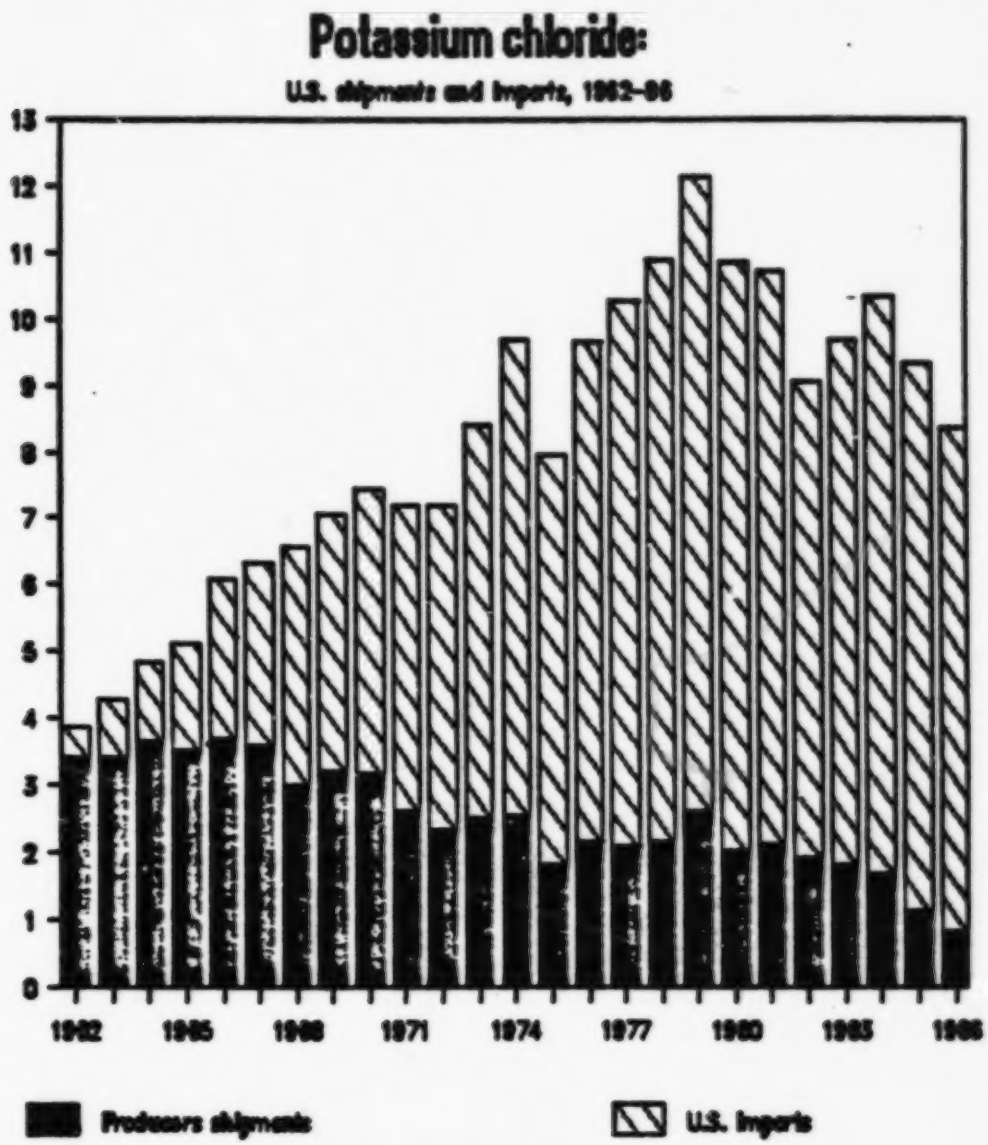
Figure 2.--U.S. producers' shipments of potassium chloride and U.S. imports of potassium chloride, 1962-86



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extensive network of leased and/or owned warehouses in this major market area. In the early 1980's, U.S. producers began to open warehouses in the midwest and southeastern markets. However, by the end of 1986 virtually all of the warehouses operated by U.S. producers had been closed. High freight and distribution costs were cited among the reasons for abandoning or not establishing warehouse sites.

The Bureau of Mines and the U.S. Department of Agriculture project U.S. consumption of potassium chloride to grow about 1 percent per year from 1987 through 1990.

Canada is the largest supplier of potassium chloride to the U.S. market, accounting for about 81 percent of aggregate U.S. consumption during 1984-86. The Canadian share of the U.S. market is expected to increase as domestic reserves are depleted.

Consideration of Material Injury or Threat Thereof

The information presented in this section of the report was obtained from responses to questionnaires of the Commission in connection with the current investigation and its 1981 and 1985 investigations with respect to potassium chloride from Canada (No. 751-TA-3) and the U.S.S.R. (No. 731-TA-187), respectively, and from data published by the Potash & Phosphate Institute.

One U.S. producer, International Minerals and Chemical, Corp., is a producer/importer of potassium chloride from Canada. If data concerning this producer, which accounted for slightly more than *** percent of aggregate U.S. production and more than *** percent of imports from Canada during 1984-86, were excluded from information presented in this section, the overall trends would remain the same. Data with respect to the domestic industry's performance should IMC be excluded are presented in appendix C.

U.S. production, capacity, and capacity utilization

Data on U.S. producers' productive capacity are presented in table 5. U.S. capacity to produce potassium chloride was essentially level from 1984 through 1986 at slightly over 2.6 million short tons annually. 1/ These capacity figures do not take into account Mississippi Chemical's idled facility at Carlsbad, NM. This plant has been closed since January 1983.

Ideally, U.S. producers operate their potassium chloride facilities 24 hours a day, 7 days a week, with the plants closing only for ordinary maintenance work. In the aggregate, U.S. mines could have operated a total of 2,555 mine days in 1986. In that year, U.S. producers shut down their potassium chloride operations a total of 634 days for ordinary maintenance, inventory buildup, vacations, etc; this was up from 464 days shutdown in 1984. Of the total number of days closed in 1986, U.S. producers reported

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1/ Six of the seven U.S. producers of potassium chloride, accounting for more than 95 percent of U.S. production in 1986, have responded to the Commission's questionnaire.

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Table 5.--Potassium chloride: U.S. production capacity, production, and capacity utilization, 1977-86

Year	Capacity	Production	Capacity utilization
	-----1,000 short tons KCl-----		Percent
1977	3,503	3,248	92.7
1978	3,657	3,485	95.2
1979	3,688	3,438	93.2
1980	3,837	3,460	90.1
1981	3,630	3,324	91.5
1982	3,505	2,784	79.4
1983	3,234	2,083	64.4
1984	2,612	2,357	90.2
1985	2,633	1,881	71.4
1986	2,607	1,751	67.1

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

that they closed their plants 218 days because of inventory buildup. ***, ***, and *** accounted for 569 of the days closed in 1986.

If a potash mine is closed for several months, the roofs in the underground mining areas subside. According to the Bureau of Mines, the remaining economic ore reserve in the mine, as a consequence, "may be lost forever . . . and the remaining reserves will not support the startup cost and any capital investment" necessary to reopen the mine. In addition, the surface equipment in a beneficiation plant that is not in use deteriorates rapidly. Thus, it is also uneconomical to repair such a plant that has been closed for a long time. 1/

U.S. producers' production capacity will continue to decrease as the potash reserves are exhausted. According to the Bureau of Mines, the reserves held by Lundberg Industries, Ltd. and Texasgulf may be depleted in the early 1990's. Reserves held by AMAX may be depleted by the year 2000. The other producers, according to the Bureau of Mines, "appear to have sufficient reserves to operate past the year 2000." 2/

U.S. production of potassium chloride decreased from 2.4 million short tons KCl in 1984 to 1.8 million short tons in 1986, representing a decrease of nearly 26 percent (table 5 and fig. 3). Production in 1986 was down from 1985 by almost 7 percent. With the decrease in production, utilization of U.S. producers' potassium chloride productive capacity decreased from 90.2 percent in 1984 to 67.1 percent during 1986.

1/ James P. Searles, "Potash" Mineral Facts and Problems (1985 edition), U.S. Department of the Interior, Bureau of Mines, p. 14.
2/ Ibid, p. 16.

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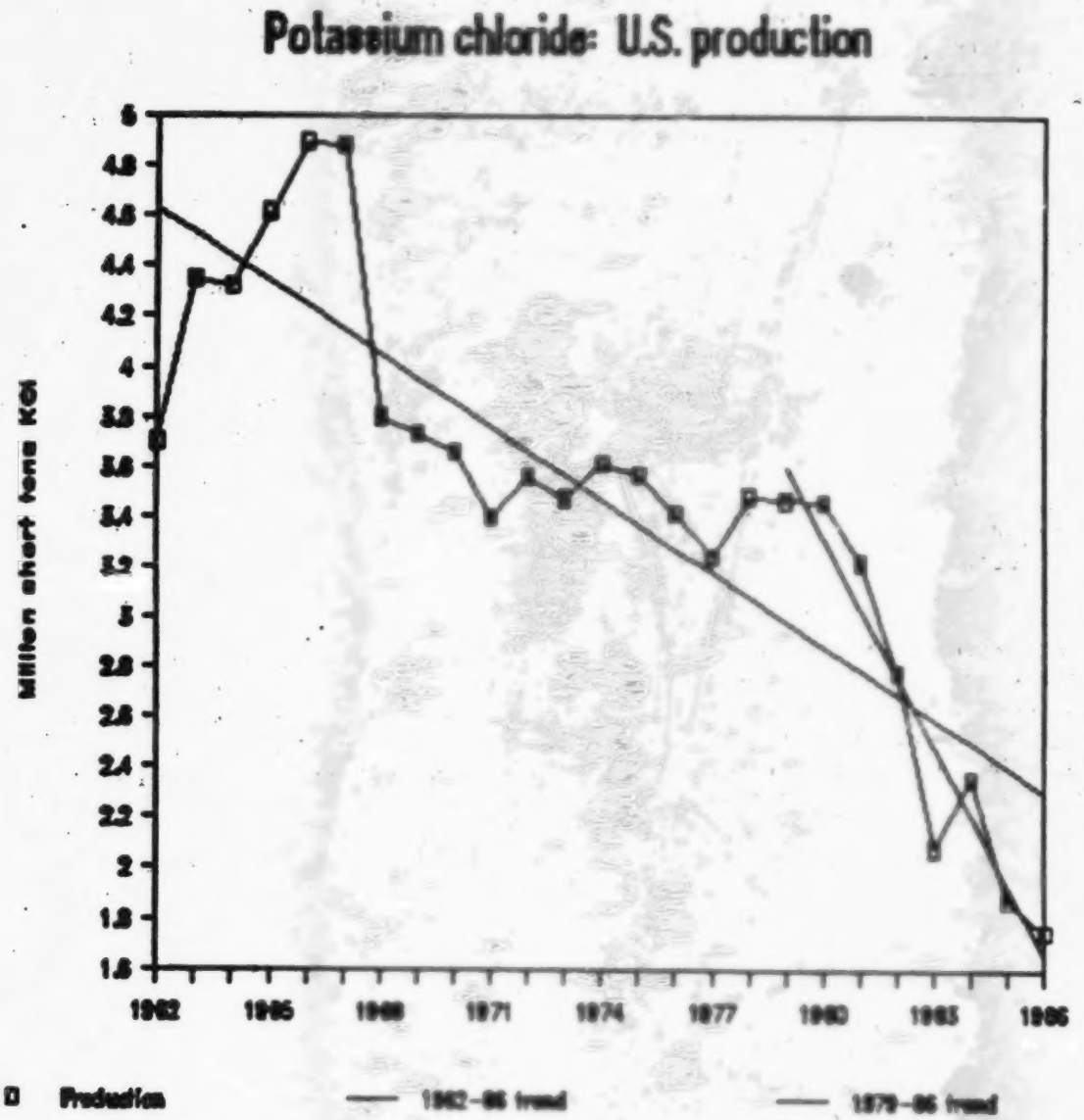
Figure 3.--U.S. production of potassium chloride, 1962-86



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U.S. producers' shipments

U.S. producers' domestic shipments followed the same trend as production, decreasing throughout the period of investigation (tables 4 and 6). Domestic shipments dropped from 1.6 million short tons in 1984 to 732,000 short tons in 1986, or by more than 55 percent. Export shipments as reported in questionnaire responses by U.S. producers rose during the same period by nearly 14 percent, from 711,000 short tons in 1984 to 810,000 short tons in 1986. Aggregate domestic and export shipments declined by nearly 35 percent, from 2.4 million to 1.5 million short tons.

As indicated in table 1, granular and coarse grade potassium chloride account for nearly 80 percent of U.S. potassium chloride consumption in the United States. The following tabulation shows 1986 shipments in the United States, by grade, by U.S. producers and importers of Canadian product (in percent): 1/

	Share of U.S. producers' domestic shipments	Share of Canadian importers' U.S. shipments
Granular.....	48	35
Coarse.....	14	46
Standard.....	38	7
Soluble.....	0	12
Total.....	100	100

According to the Bureau of Mines, the United States enjoys a freight advantage over Canada in many overseas potassium chloride markets. A significant share of U.S.-produced potassium chloride is exported from west coast and gulf coast ports to Central and South America, New Zealand, and Japan. The following tabulation shows U.S. producers' export shipments as a share of their total shipments (in percent):

Year	U.S. exports as a share of total shipments
1977.....	40.6
1978.....	36.7
1979.....	27.5
1980.....	39.0
1981.....	26.4
1982.....	28.7
1983.....	20.3
1984.....	29.5
1985.....	38.9
1986.....	49.6

1/ Respondents contend that Canadian producers provide the granular and coarse grades of potassium chloride desired by consumers, whereas U.S. producers produce and ship more of the standard grade potassium chloride that is less in demand by consumers in the United States.

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Table 6.--Potassium chloride: U.S. producers' shipments, 1984-86

Item	1984	1985	1986
Domestic shipments			
Quantity....1,000 short tons..	1,644	1,049	732
Value.....1,000 dollars..	105,984	66,149	43,889
Unit value.....per ton..	$64.46	$63.05	$59.95
Export shipments			
Quantity....1,000 short tons..	711	718	810
Value.....1,000 dollars..	37,297	33,790	30,978
Unit value.....per ton..	$52.45	$47.06	$38.24
Intracompany transfers 1,000 short tons..	48	78	89
Total shipments.....do....	2,403	1,845	1,631

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Offshore sales for U.S. producers increased by almost 14 percent during 1984-86 and the share of total shipments going to the export market increased from 30 percent to 50 percent. However, in spite of these increases, exports in 1986 were still only about two-thirds of those in 1980 when they reached a level of 1.3 million short tons. The majority of U.S. export sales for 1984-86 were of standard grade potassium chloride. Table 7 shows U.S. exports of potassium chloride, as compiled from official statistics of the U.S. Department of Commerce, during 1977-86.

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Table 7.--Potassium chloride: U.S. exports of domestic merchandise by principal markets, 1977-86

Market	1977	1978	1979	1980	1981	1982	1983	1984 1/	1985 1/	1986
	Quantity (1,000 short tons)									
Brazil	597	605	481	561	233	222	13	320		
Japan	59	82	61	101	88	136	97	83		
New Zealand	180	146	182	156	109	96	104	65		
Colombia	46	43	22	48	24	25	12	48		
Mexico	68	128	37	70	42	41	40	47		
Dominican Republic	24	23	41	58	30	21	22	30		
Peru	0	2/	8	15	12	2/	7	21		
Venezuela	0	2/	0	16	2/	12	2/	21		
Ecuador	7	15	14	19	19	16	6	17		
Australia	60	42	7	31	67	2/	0	13		
All other	261	157	130	220	163	223	134	23		
Total	1,302	1,241	982	1,295	786	791	436	687	***	***
	Percent of total quantity									
Brazil	46	49	49	43	30	28	3	47		
Japan	5	7	6	8	11	17	22	12		
New Zealand	14	12	19	12	14	12	24	9		
Colombia	4	3	2	4	3	3	3	7		
Mexico	5	10	4	5	5	5	9	7		
Dominican Republic	2	2	4	4	4	3	5	4		
Peru	0	3/	1	1	2	3/	2	3		
Venezuela	0	3/	0	1	3/	2	3/	3		
Ecuador	1	1	1	1	2	2	1	2		
Australia	5	3	3/	1	9	3/	0	2		
All other	20	13	13	17	21	28	31	3		
Total	100	100	100	100	100	100	100	100	***	***
	Value (million dollars)									
Brazil	32	34	36	65	26	15	1	28		
Japan	3	5	4	8	9	12	7	6		
New Zealand	9	7	10	13	11	8	8	5		
Colombia	2	2	1	5	3	2	1	4		
Mexico	3	6	2	6	4	3	3	4		
Dominican Republic	1	1	3	7	4	2	2	3		
Peru	0	4/	1	2	1	4/	1	2		
Venezuela	0	4/	0	2	4/	1	4/	2		
Ecuador	4/	1	1	2	2	1	4/	1		
Australia	3	2	4/	4	7	4/	0	1		
All other	14	10	8	22	17	17	10	2		
Total	67	68	66	134	82	61	32	58	***	***

1/ Effective July 1985, official statistics on U.S. exports of fertilizers became aggregated under a single Schedule B classification. Therefore, official export data detail beyond aggregate value information is no longer available for comparison except on a confidential basis.
2/ Less than 500 short tons
3/ Less than 0.5 percent.
4/ Less that $500,000.

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Source: Compiled from official statistics of the U.S. Department of Commerce.

U.S. producers' inventories

Sales of potassium chloride are seasonal, and producers build up inventories in order to have adequate supplies available during the spring and fall. Data on U.S. producers' yearend inventories of potassium chloride are presented in table 8. Such inventories increased from 406,000 short tons in 1984 to 572,000 short tons in 1986, an increase of nearly 41 percent. Inventories as a share of producers' total annual shipments increased from 17 percent in 1984 to 24 percent in 1985 and 35 percent in 1986.

Table 8.--Potassium chloride: U.S. producers' yearend inventories, 1977-86

Year	Quantity	Ratio of inventories to U.S. producers' shipments
	1,000 short tons KCl	Percent
1977	720	20.4
1978	618	17.9
1979	325	9.0
1980	349	10.6
1981	725	25.0
1982	754	28.0
1983	517	22.6
1984	406	16.8
1985	448	24.2
1986	572	35.0

Source: Data for 1977-80, Potash & Phosphate Institute; data for 1981-86, questionnaires of the U.S. International Trade Commission.

Prior to 1979-80, nearly all U.S. producers' potassium chloride inventories were held at minesite. At that time, U.S. producers began to open warehouses throughout the United States in order to permit more timely delivery to their customers and, by 1984, were holding approximately 15 percent of their inventories in offsite warehouses. As noted earlier in this report, in the U.S. market section, the number of warehouses owned or leased by U.S. producers had dwindled to nearly none by yearend 1986, with little or no reported inventory held offsite.

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Employment and wages

The average number of workers engaged in the production of potassium chloride decreased from 1,348 in 1984 to 1,037 in 1986, or by 23 percent (table 9). Those firms that commented with respect to reasons for a reduction in employment cited poor economic conditions and depressed prices for potassium chloride. Hours worked by production and related workers and wages and total compensation paid to such employees dropped by slightly over 30 percent from 1984 through 1986. Workers engaged in the production of potassium chloride are, for the most part, union members; their average hourly wages in 1986 were $15.27, compared with $15.16 in 1984.

Labor productivity, as measured by output per worker hour, rose by 13 percent from 0.925 ton per worker hour in 1984 to 1.046 tons per hour worked in 1985 and then dropped by 5 percent to 0.994 ton per hour worked in 1986. Unit labor costs fell from $19.53 per ton in 1984 to $18.53 in 1986, a decline of 5 percent.

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Table 9.--Average number of production and related workers engaged in the production of potassium chloride, average number of hours worked by such workers, and wages, total compensation, and hourly compensation paid to such workers, 1984-86

Item	1984	1985	1986
Production and related workers:			
Number	1,348	1,095	1,037
Percentage change	1/	-18.7	-5.2
Hours worked by production and related workers:			
Number.....thousands	2,547	1,797	1,760
Percentage change	1/	-29.4	-2.0
Wages paid to production and related workers:			
Value..1,000 dollars	38,629	30,106	26,890
Percentage change	1/	-22.0	-10.6
Total compensation paid to production and related workers:			
Value..1,000 dollars	46,046	36,306	32,455
Percentage change	1/	-21.1	-10.6
Hourly compensation paid to production and related workers:			
Value..per hour	$15.16	$16.75	$15.27
Percentage change	1/	10.5	-8.8
Labor productivity for production and related workers:			
Quantity tons per hour	0.925	1.046	0.994
Percentage change	1/	13.0	-4.9
Unit labor costs:			
Value.....per ton	$19.53	$19.30	$18.53
Percentage change	1/	-1.1	-3.9

1/ Not available.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

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Financial experience of U.S. producers

Six U.S. producers furnished usable income-and-loss data on their operations producing potassium chloride and on their overall establishment operations. The six producers accounted for more than 95 percent of total reported U.S. production during the period of investigation. Aggregate financial data include International Minerals and Chemicals Corp., which is also a Canadian producer and importer of the subject product. IMC's aggregate share of U.S. production of potassium chloride for 1984-86 was approximately *** percent of total reported U.S. production. 1/

Operations producing potassium chloride.--Aggregate net sales declined from $157.6 million in 1984 to $108.2 million in 1985, a decrease of 31.4 percent, then decreased by 28.1 percent to $77.8 million in 1986 (table 10). The net decrease in sales from 1984 to 1986 was $79.8 million, or 50.6 percent. Aggregate operating losses were experienced by the producers for each of the years 1984, 1985 and 1986, with losses of $2.5 million, $17.0 million, and $8.6 million, respectively. The operating loss margins were 1.6 percent, 15.7 percent, and 11.1 percent for the respective years.

Overall establishment operations.-- Net sales decreased from $819.2 million in 1984 to $682.9 million in 1985 and dropped further to $566.8 million in 1986 (table 11). The net decrease in sales from 1984 to 1986 was $252.3 million, or 30.8 percent. Operating income declined from $67.8 million in 1984 to an operating loss of $315,000 in 1985. Operating income of $906,000 was reported in 1986. The operating margins in 1984, 1985, and 1986 were 8.3 percent, less than (0.05) percent, and 0.2 percent, respectively. Net income before income taxes was significantly affected by other income or expense. One producer, ***, had total expenses of *** in 1984 for writedown and ***. Another producer, ***, had a writedown of *** in the same year. Both producers, however, had substantial other income the following year; ***, ***; ***, ***. *** had asset writedowns of ***, ***, and *** in 1984, 1985, and 1986, respectively. Aggregate pretax income or (loss) for all of the respondents was ($19.5 million), $10.1 million, and ($9.1 million) for the respective years. The pretax margins were (2.4 percent), 1.5 percent, and (1.6 percent) for 1984, 1985, and 1986, respectively.

Value of property, plant, and equipment.--The six producers' investment in facilities employed in the production of potassium chloride is shown in the following tabulation (in thousands of dollars):

	All establishment products		Potassium chloride	
Year	Original cost	Book value 1/	Original cost	Book value 1/
1984.....	2,323,727	2,005,002	211,988	109,962
1985.....	2,194,696	1,916,624	154,639	75,053
1986.....	2,207,004	1,901,114	134,150	60,636

1/ Net of asset writedowns of ***, ***, and *** in 1984, 1985, and 1986, respectively. The amounts are applicable both to all establishment products and potassium chloride products.

1/ IMC's income-and-loss data are presented separately from the other five producers in app. C.

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Table 10.--Income-and-loss experience of 6 U.S. producers on their operations producing potassium chloride, accounting years 1984-86

Item	1984	1985	1986
Net sales.....1,000 dollars..	157,606	108,169	77,802
Cost of goods sold.....do....	152,377	118,773	81,080
Gross profit or (loss).....do....	5,229	(10,604)	(3,278)
General, selling, and administrative expense.....do....	7,740	6,392	5,361
Operating income or (loss).....do....	(2,511)	(16,996)	(8,639)
Depreciation and amortization expense.....do....	34,541	6,481	2,899
Ratio to net sales:			
Cost of goods sold.....percent..	96.7	109.8	104.2
Gross profit or (loss).....do....	3.3	(9.8)	(4.2)
General, selling, and administration expense.....do....	4.9	5.9	6.9
Operating income or (loss).....do....	(1.6)	(15.7)	(11.1)
Number of firms reporting--			
Operating losses.....	2	5	5
Data.....	1/2/ 5	2/ 6	6

1/ Data reflect Kerr-McGee's owned and operated facilities at Hobbs, NM, and Trona, CA, in 1984. The Hobbs, NM, facility was sold to New Mexico Potash Corp. in 1985.
2/ Data reflect operations of Potash Corp. of America's owned and operated facility at Carlsbad, NM, in 1984 and 1985. The Carlsbad, NM, facility was sold to Lundberg Industries, Ltd., in 1986.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

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Table 11.--Income-and-loss experience of 6 U.S. producers on the overall operations of their establishments within which potassium chloride is produced, accounting years 1984-86

Item	1984	1985	1986
Net sales.....1,000 dollars..	819,175	682,903	566,843
Cost of goods sold.....do....	712,560	645,332	532,291
Gross profit.....do....	106,615	37,571	34,552
General, selling, and administrative expense.....do....	38,791	37,886	33,646
Operating income or (loss).....do....	67,824	(315)	906
Interest expense.....do....	30,538	26,655	23,617
Other income or (expense), net.....do....	(56,824) 1/	37,044 2/	13,612 3/
Net income or (loss) before income taxes.....do....	(19,538)	10,074	(9,099)
Depreciation and amortization expense.....do....	80,691	51,424	53,141
Cash-flow from operations.....do.....	61,153	61,498	44,042
Ratio to net sales:			
Cost of goods sold.....percent..	87.0	94.5	93.9
Gross profit.....do....	13.0	5.5	6.1
General, selling, and administrative expense.....do....	4.7	5.5	5.9
Operating income or (loss).....do....	8.3	4/	0.2
Net income or (loss) before income taxes.....do....	(2.4)	1.5	(1.6)
Number of firms reporting--			
Operating losses.....	0	3	3
Data.....	5/6/ 5	6/ 6	6

1/ Includes *** expense for asset write-downs and ***.
2/ Includes ***, ***, and *** expense for asset write-downs.
3/ Includes *** expense for asset write-downs.
4/ Less than (0.05) percent.
5/ Data reflect Kerr-McGee's owned and operated facilities at Hobbs, NM, and Trona, CA, in 1984. The Hobbs, NM, facility was sold to New Mexico Potash Corp. in 1985.
6/ Data reflect operations of Potash Corp. of America's owned and operated facility at Carlsbad, NM, in 1984 and 1985. The Carlsbad, NM, facility was sold to Lundberg Industries, Ltd., in 1986.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

BEST COPY AVAILABLE 47

Capital expenditures and research and development expenses.--Six U.S. producers reported capital expenditures and two, ***, reported information on research and development expenses. The data for potassium chloride operations only are shown in the following tabulation (in thousands of dollars):

Year	Capital expenditures	Research and development
1984.....	3,164	***
1985.....	3,464	***
1986.....	2,271	***

Capital and investment.--U.S. producers were asked to describe any actual or potential negative effects of imports of the subject product from Canada on their firm's growth, investment, and ability to raise capital. Their replies were as follows:

* * * * * * *

Consideration of Threat of Material Injury

In its examination of the question of threat of material injury to an industry in the United States, the Commission may take into consideration such factors as the rate of increase in the alleged LTFV imports, the rate of increase in U.S. market penetration by such imports, the quantity of such imports held in inventory in the United States, and the capacity of producers in the subject country to generate exports (including the availability of export markets other than the United States).

Projections of U.S. consumption of potassium chloride were noted in the section of this report concerning the U.S. market. Trends in imports and U.S. market penetration are discussed in the section of this report that addresses the causal relationship between the alleged material injury and the alleged LTFV imports. Information regarding importers' inventories and the capacity of Canada to generate exports follows.

Importers' inventories

U.S. importers of potassium chloride from Canada hold the product in inventory in warehouses located primarily in the Midwest and Southeast. Importers of potassium chloride from Canada responding to the Commission's questionnaires owned or leased 136 warehouses with a capacity of nearly 1.8 million short tons. These importers accounted for more than 90 percent of imports of potassium chloride from Canada in 1986. PCS, IMC, Cominco, and Kalium, with 121 warehouses, had a storage capacity of nearly 1.3 million short tons. Of these warehouses, 91 were located in the major consuming States in the upper Midwest and 20 were located in the Southeast. Information concerning the quantities of potassium chloride held in inventory during 1984-86 is presented in table 12.

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Table 12.--Potassium chloride: Importers' yearend inventories and shipments of product imported from Canada, 1984-86

Item	1984	1985	1986
Inventory...1,000 short tons KCl..	1,253	1,197	1,014
Shipments.....do....	5,899	6,444	6,406
As a share of shipments..percent..	21.2	18.5	15.8

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

The potassium chloride industry in Canada

The information in this section of the report was obtained from responses to importer questionnaires (by those importers who also happen to be Canadian producers) in connection with the current investigation; annual reports; Department of State cables; and a number of publicly available sources such as the Tennessee Valley Authority.

Canadian potash mine construction began in the late 1950's, when a method was found to sink a shaft through the porous Blairmore formation in Saskatchewan. The Canadian potassium chloride industry began production operations in the early 1960's, expanded rapidly, and currently is composed of 12 mining operations. Canada has the second largest installed potassium chloride capacity base in the world. The names and production locations of the Canadian firms that have produced potassium chloride in recent years are presented in table 13. Canadian potassium chloride production capacity is presented in table 14. There are 10 potassium chloride production sites in Saskatchewan and 2 in New Brunswick. Saskatchewan accounted for approximately 90 percent of Canadian potassium chloride production capacity during 1986.

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Table 13.--Potassium chloride: Canadian producers' plant locations, types of operations, years production began, and parent firms

Firm and location	Type of operation	Year production began	Parent
Central Canada Potash Co., Colonsay, Saskatchewan.	Shaft mine	1969	Noranda, Inc.
Cominco, Ltd. Vanscoy, Saskatchwan.	Shaft mine	1966	Same
Dennison-Potacan Potash Co., Sussex, N.B.	Shaft mine	1985	Dennison Mines, Ltd., and Potash Company of Canada, Ltd. 1/
International Minerals & Chemical Corp., Ltd., Esterhazy, Saskatchewan.	Shaft mine (K1) Shaft mine (K2)	1962 1967 2/	International Minerals and Chemical Corp.
Kalium Chemicals, Belle Plaine, Saskatchewan.	Solution mine	1964	PPG Industries, Ltd.
Potash Corp. of America			Rio Tinto Zinc
Lake Patience, Saskatchewan.	Shaft mine 3/	1965 3/	
Sussex, N.B.	Shaft mine	1984	
Potash Corp. of Saskatchewan,			Same
Allan, Saskatchewan.	Shaft mine	1968 4/	
Cory, Saskatchewan.	Shaft mine	1968 5/	
Esterhazy, Saskatchewan.	Shaft mine	1968 2/	
Lanigan, Saskatchewan.	Shaft mine	1968 6/	
Rocanville, Saskatchewan.	Shaft mine	1970 7/	
Saskterra Fertilizer, Ltd. Allan, Saskatchewan.	Shaft mine	1968 8/	Canterra Energy, Ltd.

1/ Dennison-Potacan is a joint venture, formed in 1981, consisting of 60 percent ownership by Dennison Mines, Ltd., and 40 percent ownership by the Potash Co. of Canada, Ltd., (Potacan) as the marketing arm. Potacan is a 50-50 partnership of Enterprise Miniere et Chimique of France and Kali und Salz, AG, of West Germany.
2/ PCS acquired a 25 percent mineral right interest in the Esterhazy K2 mine in February 1978. IMC, which owns the other 75 percent, operates the mine. PCS

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Footnotes for Table 13--Continued

receives potash from the Esterhazy mine under a mining and processing agreement with IMC.

3/ The Potash Corp. of America's (PCA) Canadian subsidiary of Ideal Basic Industries was sold to Rio Algom, Ltd. on Jan. 31, 1986. Rio Algom is 53 percent owned by Rio Tinto Zinc of the United Kingdom. The PCA Patience Lake mine has been closed since February 1987 because of flooding and will not reopen before 1988, possibly as a solution mine.

4/ PCS acquired a 60 percent cotenancy position in the Allan mine from Swift Canadian Co., Ltd. and U.S. Borax and Chemical Corp. in April 1978. Saskterra Fertilizers, Ltd. is a 40 percent cotenant in the Allan mine.

5/ PCS acquired the Cory mine from Duval Corp. of Canada in October 1976.

6/ PCS acquired the Lanigan mine from Alwinsal Potash of Canada, Ltd. in November 1977. Lanigan was shut down because of a strike for 10 months during 1986.

7/ PCS acquired the Rocanville mine from Hudson Bay Mining and Smelting Co. Ltd. in April 1977. Rocanville was closed from December 1984 to March 1985 because of flooding.

8/ Saskterra was formed in 1986 to acquire a 40 percent cotenancy interest in the Allan potash mine from Kidd Creek Mines Ltd., a wholly owned subsidiary of Canada Development Corp. (CDC) in March 1986. At the time of the transfer, Saskterra was also a wholly owned subsidiary of CDC. Effective Nov. 30, 1986, Canterra Energy, Ltd. acquired from CDC all of the issued shares of Saskterra.

Source: Compiled from information obtained in response to questionnaires of the U.S. International Trade Commission, the Bureau of Mines, Statistics Canada, and U.S. Department of State cables.

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Table 14.--Potassium chloride: Canadian producers, location of production facilities, and annual production capacity, 1986

Firm and location	Capacity	
	Quantity	Share of quantity
	1,000 short tons KCl	Percent
Central Canada Potash Co., Colonsay, Saskatchewan	1,500	6.9
Cominco, Ltd., Vanscoy, Saskatchewan	1,520	7.0
Dennison-Potacan Potash Co., Sussex, NB	1,430	6.6
International Minerals & Chemical Corp., Ltd, Esterhazy, Saskatchewan 1/	3,200	14.7
Kalium Chemicals, Belle Plaine, Saskatchewan	1,900	8.7
Potash Corp. of America:		
Lake Patience, Saskatchewan	1,170	5.4
Sussex, NB	720	3.3
Potash Corp. of Saskatchewan:		
Cory, Saskatchewan	1,530	7.0
Lanigan, Saskatchewan	3,830	17.6
Rocanville, Saskatchewan	2,130	9.8
Allan, Saskatchewan 2/	1,070	4.9
Esterhazy, Saskatchewan 3/	1,070	4.9
Saskterra Fertilizer, Ltd., Allan, Saskatchewan 4/	700	3.2
Total	21,770	100.0

1/ Capacity cited is 75 percent of Esterhazy capacity.
2/ Capacity cited is 60 percent of Allan capacity.
3/ Capacity cited is 25 percent of Esterhazy capacity.
4/ Capacity cited is 40 percent of Allan capacity.

Source: The Tennessee Valley Authority.

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Canadian capacity to produce potassium chloride increased from 17 million short tons in 1984 to nearly 22 million short tons in 1986, or by 25 percent. During the same period, production in Canada dropped by 14 percent, from 14 million short tons to 12 million short tons. Capacity utilization by Canadian producers dropped from 82 percent in 1984 to 57 percent in 1986. Canadian producers' exports to the United States as a share of their total exports dropped from 63.5 percent in 1984 to 59.3 percent in 1986. Data on Canadian productive capacity, production, capacity utilization, total exports, and exports to the United States are presented in table 15.

Table 15.--Potassium chloride: Canadian production capacity, production, capacity utilization, exports, and exports to the United States, 1982-86

Year	Capacity	Production	Capacity utilization	Total exports	Exports to U.S.	Export share to U.S.
	1,000 short tons KCl		Percent	1,000 short tons KCl		Percent
1982...	16,000	9,568	59.8	7,960	5,226	65.6
1983...	17,400	10,892	62.8	10,375	6,729	64.8
1984...	17,400	14,236	81.8	12,670	8,055	63.5
1985...	17,400	12,193	70.1	10,805	7,110	65.8
1986...	21,770	12,304	56.5	10,906	6,478	59.3

Source: Potash & Phosphate Institute, Statistics Canada, and the Tennessee Valley Authority.

The Potash Corp. of Saskatchewan (PCS) held approximately 44 percent of Canadian potassium chloride production capacity during 1986. PCS was established in 1975 as a Crown Corporation of the Province of Saskatchewan to own and operate potash mines the Provincial government acquires. The potash industry in Saskatchewan was thought to have expanded too rapidly during the 1960's, with overproduction responsible for prices below cost levels. By 1969, most Saskatchewan potash mines were near bankruptcy and sought government help. Saskatchewan government response was to set production quotas and floor prices to save the industry. The Saskatchewan Provincial government maintained that free enterprise brought about the problems in the Saskatchewan potash industry and government action stabilized the industry. 1/ Therefore, the Saskatchewan government decided that it would be of benefit to the potash industry to have a guaranteed flow of revenue and gradual orderly expansion plans that would be possible if the industry were nationalized. Thus, PCS came into being as a Crown Corporation with government ownership of shares but at arms-length for decision making. Legislation was also passed that would allow the Saskatchewan government to expropriate assets of any potash firm unwilling to sell to the government. In October 1976, PCS acquired the Cory mine from Duval Corp. of Canada. In April 1977, PCS acquired the Rocanville mine from Hudson Bay Mining and Smelting Co., Ltd. and in November of that year acquired the Lanigan Mine from

1/ Regina Leader Post, Mar. 2, 1976, p. 16.

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Alwinsal Potash of Canada, Ltd. In April 1978, PCS acquired a 60 percent cotenancy interest in the Allan mine from Swift Canadian Co., Ltd. and U.S. Borax and Chemical Corp. In February 1978, PCS acquired a 25 percent mineral right interest in the Esterhazy mine from Amax Potash, Ltd. IMC, which owns the other 75 percent of the Esterhazy mine, operates the mine and PCS receives potash from IMC under a mining and processing agreement.

Starting in 1984, PCS increased normal mine maintenance shutdown from ***. The total 1984 maintenance shutdown for all four PCS mines except Esterhazy (IMC) was *** days. This averages *** days per each of the four PCS mines in 1984. All PCS closure data excludes the Esterhazy (IMC) mine. In addition, the four PCS mines were closed for a total of *** days in 1984 ***.

The PCS Rocanville mine was shut for ***, ***, because of flooding. All four mines were closed for a total of *** days *** and a total of *** days (approximately *** per mine) ***. The 1985 *** shutdowns are believed to have been attributable ***. PCS now operates all but the *** mine on a ***, which reduces production by ***, ***. The *** and *** mine have been on this schedule from 1984 to present and *** since June 1985.

During 1986, *** PCS mines were shut for a total of *** days for ***. *** and the other *** PCS mines were shut for a total of *** days because of ***. PCS notes that the number of "down" time days ***, ***.

In 1986, the Lanigan mine completed a major expansion that will result in an increase in production capacity by 1.9 million tons KCl. This expansion was originally due to be completed at the end of 1984 but ***. This plant was not yet commissioned at yearend 1986 and ***.

PCS conducted some groundwork for a new mine at Bredenbury, Saskatchewan, in the early 1980's, but market conditions precluded further project development. PCS wrote off the Bredenbury exploration expenses in 1985. Its Annual Report for 1985 stated that, in view of the current economic outlook for potash, these properties are unlikely to be developed in the near future.

International Minerals & Chemical Corp., Ltd. (IMC) accounted for approximately 15 percent of Canadian potassium chloride production capacity during 1986. IMC has been battling flooding in the K2 mine since late December 1985. The mine was closed for a month until the water problem could be brought under control with pumps and sealant. IMC will ***.

Kalium accounted for approximately 9 percent of Canadian potassium chloride production capacity during 1986. Kalium's expansion of the Belle Plaine solution mine capacity from 1.9 million short tons KCl to 2.4 million short tons KCl was completed in late 1986. ***. Kalium operated ***. Kalium recently conducted feasibility tests and constructed a pilot solution mine in Michigan in anticipation of bringing an 830,000 short-tons-KCl-per-year mine on line about 1989-90 ***.

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The Potash Corp. of America (PCA), a Canadian subsidiary of Ideal Basic Industries, was sold to Rio Algom, Ltd. on January 31, 1986. Rio Algom is 53 percent owned by Rio Tinto Zinc of the United Kingdom. The PCA Patience Lake mine has been closed since February 1987 because of flooding and will not reopen before 1988, possibly as a solution mine. PCA is also experiencing continuing problems at its recently opened New Brunswick mine, even with major improvements to the surface plant completed. The New Brunswick mine became officially operational in November 1986. The New Brunswick requirement for nonsurface tailing storage necessitates additional capital investment for handling equipment to move tailings back underground as backfill. 1/ PCA accounted for approximately 9 percent of Canadian potassium chloride production capacity during 1986. It is still building toward rated capacity in New Brunswick and can easily expand capacity in response to better market conditions for Canadian potash.

Cominco accounted for approximately 7 percent of Canadian potassium chloride production capacity during 1986. Cominco *** increased its capacity by 25 percent to 1.5 million short tons KCl per year.

Dennison-Potacan (D-P) accounted for about 7 percent of Canadian potassium chloride production capacity during 1986. D-P is a joint venture, formed in 1981, consisting of 60 percent ownership by Dennison mines and 40 percent ownership by the Potash Co. of Canada (Potacan) as the marketing arm. Potacan is a 50-50 partnership of Enterprise Miniere et Chimique of France and Kali und Salz, AG of West Germany. The D-P mine near Sussex, New Brunswick, came into production during late 1985 and is not yet up to capacity. D-P experienced startup problems and tailing backfill problems. Now D-P puts its tailings into solution and dumps them into the Bay of Fundy through a pipeline, an additional expense to the company.

Central Canada Potash Co. accounted for approximately 7 percent of Canadian potassium chloride production capacity during 1986. It is currently ***. Central Canada closed its Colonsay mine for *** during 1985 and for *** during 1986 ***.

Saskterra is a Canadian corporation formed in 1986 to acquire a 40 percent interest in the Allan Potash Mine of Saskatchewan. This interest was transferred to Saskterra from Kidd Creek Mines, Ltd., effective March 7, 1986. Kidd Creek acquired its interest in the Allan mine from Texasgulf, Inc., in 1981. At the time of the transfer of the Allan Mine interest to Saskterra, both Kidd Creek and Saskterra were wholly owned subsidiaries of Canada Development Corp. (CDC). Effective November 30, 1986, Canterra Energy Ltd. acquired from CDC all of the issued shares of Saskterra. Canterra has managed Saskterra's interest in the Allan mine since March 7, 1986. Saskterra's share of the Allan mine accounted for approximately 3 percent of Canadian potassium chloride production capacity during 1986. ***.

1/ Underground, or nonsurface, tailing storage requirements are unique to New Brunswick mines. Saskatchewan mines may store tailings at the surface.

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Future Canadian expansion of potassium chloride capacity is likely to occur in New Brunswick, Manitoba, Nova Scotia, Newfoundland, and Quebec as world market conditions for potassium chloride improve. BP Canada, 65 percent held by the parent U.K. company, holds a mining lease and did surface exploration work on a prospective potash property near Sussex, New Brunswick. Further work at the site is not likely until BP acquires a partner to proceed and market conditions improve.

Canamax Resources, Inc., owned 40 percent by AMAX of the United States, is studying the development of a deposit in southwest Manitoba. The Manitoba government has a 49 percent interest (with Canamax having 51 percent) in Manitoba potash. IMC has also shown an interest in exploiting Manitoba reserves in St. Lazare, ***. ***.

Some exploration work for potash has been successful in Nova Scotia around the Bras d'Or Lake area. Potash has also been identified in saline formations along the west coast of Newfoundland and on the Madeline Islands of Quebec. 1/

Consideration of the Causal Relationship Between Alleged LTFV Imports and the Alleged Material Injury

U.S. imports

U.S. imports of potassium chloride decreased from 8.6 million short tons in 1984 to 7.5 million short tons in 1986, or by 13 percent (table 16 and fig. 4). Canada is the largest supplier of potassium chloride, accounting for 93 percent of total imports in 1984-86. Israel was the second largest supplier, accounting for 5 percent of the total.

Imports from Canada dropped from 7.9 million short tons in 1984 to 7.0 million short tons in 1986, or by 11 percent. Imports of potassium chloride from Canada accounted for 76.7 percent of U.S. consumption in 1984, then increased to 82.6 percent in 1985, and 84.3 percent in 1986 (table 17).

1/ Peter Harben, "Potash in North America: Canada Goes From Strength to Strength," Industrial Minerals (March 1986) p. 40.

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Table 16.--Potassium chloride: U.S. imports for consumption, by principal sources, 1977-86

Source	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
	Quantity (1,000 short tons)									
Canada	7,882	7,915	8,848	8,424	8,052	6,310	6,989	7,923	7,729	7,042
Israel	225	366	304	344	449	618	549	442	406	342
East Germany	10	20	61	54	55	46	135	102	27	74
Spain	56	33	23	12	24	55	58	12	0	0
U.S.S.R.	23	32	13	42	0	88	68	138	0	27
All other	9	22	27	31	20	59	75	22	71	51
Total	8,205	8,390	9,275	8,907	8,601	7,154	7,875	8,639	8,233	7,536
	Percent of total quantity									
Canada	96	94	95	95	94	88	89	92	94	93
Israel	3	4	3	4	5	9	7	5	5	5
East Germany	1/	1/	1	1	1	1	2	1	1/	1
Spain	1	1/	1/	1/	1/	1	1	1/	0	0
U.S.S.R.	1/	1/	1/	1/	0	1	1	2	0	1/
All other	1/	1/	1/	1/	1/	1	1	1/	1	1
Total	100	100	100	100	100	100	100	100	100	100
	Value (million dollars) 2/									
Canada	447	470	622	707	754	539	507	607	471	369
Israel	10	21	23	34	48	64	47	43	35	22
East Germany	1	1	4	5	5	4	10	9	2	4
Spain	3	2	2	1	2	4	4	1	0	0
U.S.S.R.	1	2	1	3	0	5	5	10	0	2
All other	3/	2	2	4	2	6	6	3	7	4
Total	463	497	653	754	812	623	579	673	515	401

1/ Less than 0.5 percent.
2/ CIF value.
3/ Less than $500,000.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note.--Because of rounding, figures may not add to the totals shown.

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Figure 4.--U.S. imports of potassium chloride, 1962-86

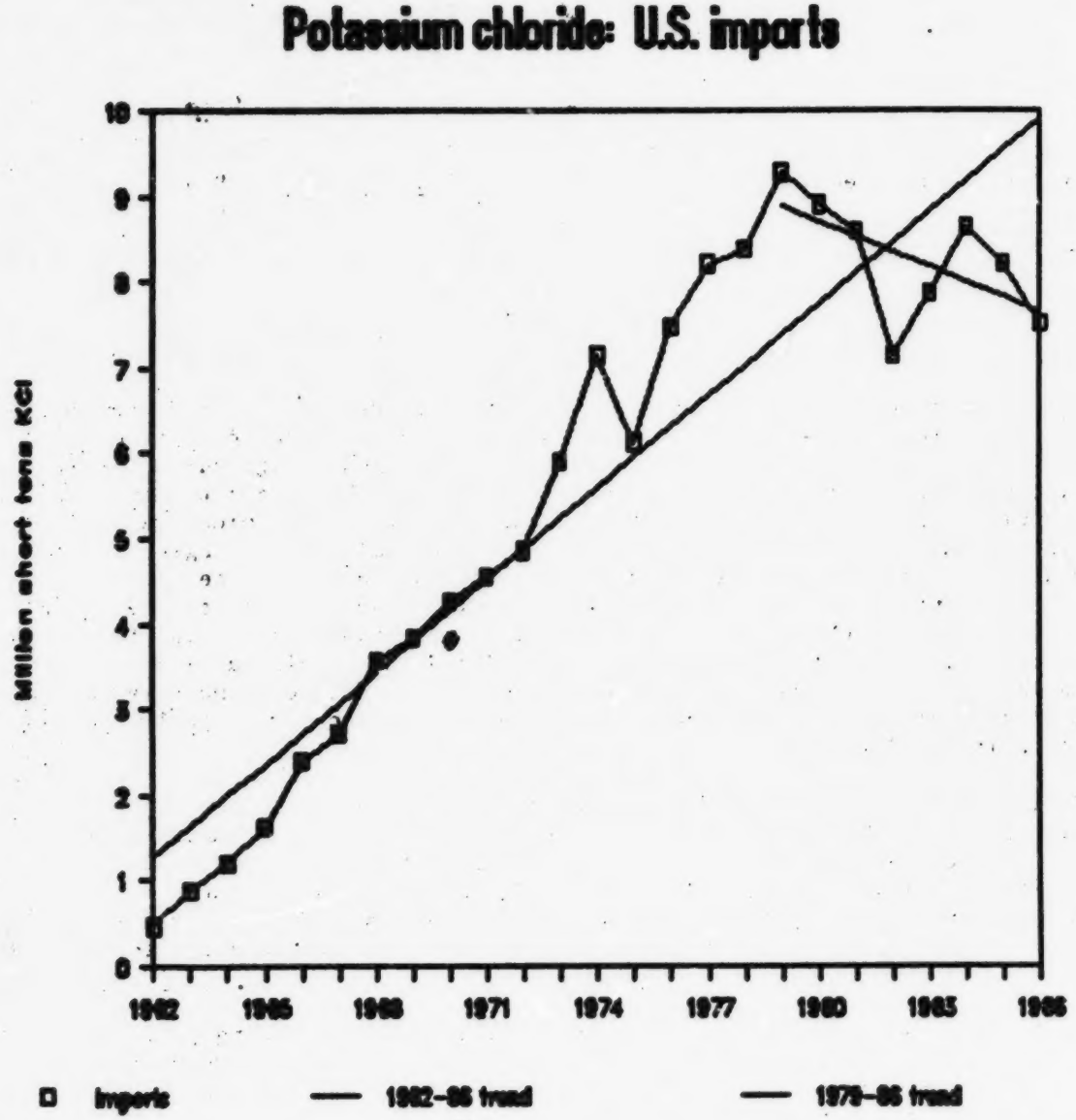

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Table 17.--Potassium chloride: U.S. imports and U.S. producers' shipments as a share of consumption, Canada and all other sources, 1984-86

(In percent)

Item	1984	1985	1986
Imports from--			
Canada	76.7	82.6	84.3
All other	6.9	5.4	5.9
Total	83.6	88.0	90.2
U.S. producers' shipments	16.4	12.0	9.8
Total	100.0	100.0	100.0

Source: Tables 4 and 16.

Prices

Introduction.--U.S. and Canadian potassium chloride is sold in four major grades. These four grades are, from low to high price: standard, coarse, granular, and soluble. Prices of potassium chloride used in agriculture vary with fluctuations in seasonal demand, but increased warehousing activities by major suppliers and reported competition resulting from a worldwide oversupply of potassium chloride, have apparently dampened seasonal price swings. 1/ Most U.S. consumption of potassium chloride is for agricultural use with the bulk of this consumption in the coarse and granular grades. Because the physical means of application generally dictates the grade used by the farmer, substitutability between the four grades is reduced in actual practice. Nevertheless, the coarse and granular grades may be used interchangeably in some applications. 2/ The U.S. and Canadian potash products reportedly are comparable in quality.

Freight from U.S. and Canadian potassium chloride mines to the major consuming areas of the United States is a significant factor, stemming from the high weight-to-value ratio. These costs typically average about 40 percent of the delivered price. 3/ U.S. producers sell most of their potassium chloride on a spot-sale basis, by train or truck from their U.S. mineheads located primarily in southeastern New Mexico. Prices are frequently

1/ ***.

2/ During the last several years farmers have shown a decreasing preference for applications using the standard grade and an increasing preference for applications using the coarse and granular grades. Much of the switch to these latter grades, however, had occurred by 1984.

3/ Potash is shipped in the U.S. market by barge, train, and truck. Barges, although generally not used by U.S. producers, carry 1,400 to 1,600 tons, railcars carry 50 to 90 tons, and trucks carry about 20 tons. In terms of freight costs per ton and per mile, barges are the lowest cost mode of transportation, trains are higher cost, and trucks are the highest cost mode. Further discussion of transportation factors follows the price section.

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negotiated from the producers' published price lists, which show an f.o.b. minehead price for each grade of potassium chloride. Although Canadian producers also sell their potassium chloride in the U.S. market from their Canadian mineheads, located primarily in Saskatchewan, they also sell a significant quantity from U.S. warehouses or distribution terminals. These U.S. outlets for the Canadian potassium chloride are concentrated primarily in the eight farming States in the Midwest and upper Midwest, where the bulk of potassium chloride is consumed in the United States. The Canadian producers sell on both a spot and contract basis. Contracts extend from 6 months to several years and specify the tonnage to be purchased over the life of the contract, with the price usually negotiated at the time of shipment. Shipment dates generally are not specified in the contract but vary according to the requirements of the purchasers.

Canadian producers ship their potassium chloride to the U.S. market in a variety of transportation modes to minimize freight costs to distant U.S. markets. Large volume shipments from the Canadian minehead to U.S. warehouses/distribution terminals or to large customers are made by unit trains or by a combination of train and barge shipments. 1/ Some smaller volume shipments are made directly from the Canadian minehead to low-volume customers, usually in single railcar quantities. Most shipments from the Canadian minehead are arranged by the Canadian producers or importers. Shipments of the imported Canadian potassium chloride from the U.S. warehouses/distribution terminals are made by barge, single railcars, or truck. The Canadian importers usually arrange the barge and railcar shipments from their warehouses, but their customers usually arrange the truck shipments. Transportation factors are discussed in more detail immediately following the price section.

Domestic and imported Canadian potassium chloride is sold to large national fertilizer distributors, local dealers, and large and small cooperatives. The national distributors and large cooperatives benefit from the purchasing power inherent in controlling the distribution of many hundreds of thousands of tons of potassium chloride annually. These purchases, however, may then be shipped in lots as small as single truck loads. The freight component of purchases by any one purchaser, therefore, may vary substantially from shipment to shipment.

1/ Low rail freight rates are negotiated by the Canadian potassium chloride producers with the Canadian and Northern-U.S. rail lines for unit-train shipments. According to ***, a purchaser of both domestic and imported potassium chloride, to obtain the low unit-train rates shippers must adhere to the following requirements: (1) a minimum of 70 railcars must be used, (2) the railcars must be owned by the railroad company(ies), (3) a single destination is allowed, and (4) the railcars must be unloaded within 36 hours of arrival.

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Questionnaire price data.--Net f.o.b. (U.S. locations) and delivered selling price data for coarse and granular grades of potassium chloride were requested from U.S. producers and from importers of Canadian potassium chloride. 1/ These price data were requested for their largest sales from the domestic mine or port of entry and from U.S. warehouses/distribution terminals, by specified modes of transport, during the first full week of each month from January 1985 through December 1986. 2/ Each respondent was also asked to identify the customer and its location in each of these transactions.

Price trends discussed in this report are based on indexes of quarterly averages of the net f.o.b. selling prices reported by U.S. producers and importers in their questionnaire responses. 3/ Whereas the reported weekly price data showed some evidence of seasonal fluctuations, 4/ other price movements masked the overall price trends in the weekly 1985-86 data. Trends are more apparent in the quarterly averages during the 2-year period. Indexes of the domestic and imported-Canadian quarterly potassium chloride prices are shown in table 18. 5/

The price comparisons discussed in this report are based on net delivered selling prices reported by U.S. producers and importers in their questionnaire responses. Delivered price comparisons between the domestic and imported Canadian potassium chloride based on the reported weekly prices are shown by geographic regions in tables 19 and 20. U.S. producers and importers reported the requested delivered price information by customer location for barge, train, and combined rail/barge shipments. Delivered price comparisons shown are based on these modes of transportation to the producers' and importers' customers. The responding producers and importers were generally not able to report delivered price information for truck shipments to their customers' locations.

Price trends.--On the basis of questionnaire responses of U.S. producers and importers, quarterly net f.o.b. selling prices of both the coarse and granular grades of domestic and imported Canadian potassium chloride generally

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1/ The price data were requested on sales shipped (1) from the domestic mine or port of entry by rail/barge combinations and by single railcars, and (2) from U.S. warehouses/distribution terminals by barge, single rail cars, and trucks.

2/ Because the questionnaire responses indicated that only a limited amount of Canadian potassium chloride is sold at the port of entry in the U.S. market, most of the reported "port of entry" f.o.b. prices of Canadian potassium chloride are actually f.o.b. the Canadian mine.

3/ The questionnaire price data were reported by four U.S. producers of potassium chloride and nine U.S. importers of potassium chloride from Canada. The responding U.S. producers accounted for about 80 percent of total reported domestic shipments of potassium chloride in 1986, and the importers accounted for about 92 percent of potassium chloride imported from Canada during this period. The responding U.S. producers and importers did not necessarily respond for all products, all modes of transportation, or all periods requested.

4/ The major seasonal peak demand period is in the spring, followed by a weaker demand surge in the fall.

5/ Because these indexes are based on f.o.b. data, prices were averaged over the different specified modes of transportation.

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fell during the periods reported, but the U.S. producers' prices typically fell faster than prices of the imported Canadian material (table 18). Also shown in table 18, the quarterly prices of the domestic and imported Canadian potassium chloride generally increased in the April-June quarter of each year, corresponding to high seasonal demand during the spring months. Reported prices during this quarter were typically the highest of the year. 1/

Coarse grade potassium chloride.--Coarse grade potassium chloride accounted for 14 percent of U.S. producers' shipments and 46 percent of shipments of imports from Canada in 1986. U.S. producers' quarterly selling prices of the coarse grade potassium chloride sold from domestic mines fluctuated, but fell by 15 percent during January-March 1985 through October-December 1986. In comparison, importers' prices of the coarse Canadian potassium chloride also fell during this period, by 13 percent for sales direct from the Canadian mines and by 18 percent for sales from U.S. warehouses/distribution terminals. Domestic producers did not report any sales of the coarse potassium chloride from U.S. warehouses/distribution terminals.

Granular grade potassium chloride.--Granular potassium chloride represented 48 percent of U.S. producers' shipments and 35 percent of shipments of imports from Canada in 1986. U.S. producers' quarterly selling prices of the granular grade potassium chloride sold from domestic mines also fluctuated, but fell by 30 percent during January-March 1985 through October-December 1986, or double the decline in their prices of the coarse potassium chloride. U.S. importers' prices of the granular Canadian potassium chloride declined less rapidly than prices of the domestic material during this period, falling by 6 percent for direct sales from Canadian mines and by 14 percent for sales from U.S. warehouses/distribution terminals. U.S. producers also reported prices of the granular potassium chloride sold from U.S. warehouses/distribution terminals during April-December 1985. During this 9-month period, their quarterly net selling prices fell 14 percent, and prices of the granular Canadian fertilizer sold from U.S. warehouses/ distribution terminals fell by approximately 6 percent.

Price comparisons.--Based on questionnaire responses of U.S. producers and importers, the reported net delivered selling price data resulted in 39 weekly price comparisons between the domestic and imported Canadian potassium chloride in five market areas during January 1985-December 1986 (tables 19 and 20). The price comparisons involved domestic potassium chloride sold only from U.S. mines and Canadian potassium chloride sold directly from the foreign mines and from U.S. warehouses. Of the 39 possible price comparisons, 13 involved coarse KCl and 26 involved granular potassium chloride. The four

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1/ The quarterly price data shown in table 18 and the weekly price data (not shown) did not indicate a pattern of seasonal price increases during the fall. This may have resulted partially from a smaller surge in demand for fertilizers in the fall than in the spring. Demand in the fall growing season is for a shorter growing period and is geographically more limited than demand surges in the spring growing season.

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Table 18.--Potassium chloride: Indexes of net f.o.b. selling prices of domestic and imported Canadian potassium chloride, by grades, by sales from mine or warehouse, and by quarters, January 1985-December 1986 1/

Grade and Period	Sales from U.S. or Canadian mines 2/		Sales from U.S. warehouses/ distribution terminals	
	Domestic	Canadian	Domestic	Canadian
Coarse:				
1985:				
January-March.....	100	100	-	100
April-June.....	102	100	-	94
July-September.....	86	98	-	84
October-December....	84	84	-	82
1986:				
January-March.....	77	91	-	80
April-June.....	82	102	-	93
July-September.....	78	86	-	80
October-December....	85	87	-	82
Granular:				
1985:				
January-March.....	100	100	-	100
April-June.....	111	101	100	96
July-September.....	96	101	95	96
October-December....	80	86	86	90
1986:				
January-March.....	89	90	-	81
April-June.....	94	106	-	95
July-September.....	85	102	-	89
October-December....	70	94	-	86

1/ The price indexes were developed from the net f.o.b. selling price data reported by U.S. producers and importers of the specified domestic and imported Canadian potassium chloride products.
2/ Indexes of the f.o.b. prices of the Canadian potassium chloride sold from the Canadian mines are primarily based on f.o.b. mine prices, but in some instances may include a few f.o.b. U.S. port of entry prices.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Note: Unless otherwise shown, January-March 1985=100.

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market areas covered were the Midwest, 1/ the upper Midwest, 2/, the West, 3/ Georgia, and Tennessee. Thirty-one of the 39 delivered price comparisons showed the Canadian potassium chloride to be priced less than the domestic products, ranging from 1 to 28 percent below domestic prices.

Coarse grade.--Ten delivered selling price comparisons involving the coarse potassium chloride were possible in the Midwest, two in the West, and one in Georgia (table 19). Of the 10 price comparisons in the Midwest market, 8 showed the Canadian potassium chloride to be priced less than the domestic product, ranging from 7 to 19 percent below the domestic prices. 4/ The lower prices of the Canadian potassium chloride averaged $7.83 per ton less, or about 11 percent below the domestic prices. Price comparisons in the other two market areas showed the Canadian potassium chloride to be priced above the domestic product, particularly in the western market, where the reported delivered prices of the Canadian potassium chloride ranged from *** percent above the reported prices of the domestic product.

Granular grade.--Twenty-two delivered selling price comparisons involving the granular potassium chloride were possible in the Midwest, one in the upper Midwest, and three in Tennessee (table 20). Of the 22 price comparisons in the Midwest market, 19 showed the Canadian potassium chloride to be priced less than the domestic product, ranging from 1 to 28 percent below the domestic prices. 5/ The lower prices of the Canadian potassium chloride averaged $13.27 per ton less, or about 15 percent below the domestic prices. The single price comparison in the upper Midwest showed the imported Canadian potassium chloride to be priced *** percent below the domestic product. In addition, all three price comparisons in Tennessee showed the Canadian potassium chloride to be priced less than the domestic product, averaging $1.44 per ton less, or 2 percent below prices of the domestic product.

Transportation costs

Because of the high weight-to-value ratio of potassium chloride, transportation costs generally account for a significant portion of the final delivered price to the purchaser. 6/ U.S. producers reported in their questionnaire responses that they typically sell their potassium chloride in markets close to their mines and ship the product in single-rail-car volumes and by trucks to their customers in the Southwest, but they also ship by unit trains to more distant customers. U.S. importers of the Canadian potassium chloride indicated selling either directly from the foreign mines or from

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1/ Illinois, Indiana, Iowa, Missouri, and Ohio.

2/ Michigan, Minnesota, and Wisconsin.

3/ Texas and Oklahoma.

4/ Includes sales of the Canadian potassium chloride from the foreign mines and from U.S. warehouses.

5/ Includes sales of the Canadian potassium chloride from the foreign mines and from U.S. warehouses.

6/ According to the March 1986 issue of Industrial Minerals, transportation and handling costs can account for as much as 40 percent of the delivered price of Canadian potassium chloride to the U.S. market. Questionnaire data suggest that freight costs can even exceed 50 percent in some instances.

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Table 19.--Coarse grade potassium chloride: Quantities and net delivered selling prices of the domestic and imported Canadian products and margins of under/(over) selling, by geographic areas and by the first week of each month, August 1985-November 1986 1/

Customer location and shipment period	Domestic		Canadian		Average margins of under/(over) selling 2/	
	Quantity	Price	Quantity	Price		
	Tons KCl	Per ton	Tons KCl	Per ton	Per ton	Percent
Sold directly from the mine to customers in--						
Midwest 3/						
1985:						
Aug 4-10.....	2,101	$73.43	4,004	$66.74	$ 6.69	9
Oct 6-12.....	101	71.11	3,102	57.74	13.37	19
1986:						
Jan 5-11.....	100	66.11	1,814	61.02	5.09	8
Feb 2-8.....	100	66.11	201	69.51	(3.40)	(5)
Aug 3-9.....	100	68.29	1,612	60.75	7.54	11
Domestic KCl sold directly from the U.S. mine and Canadian KCl sold from U.S. warehouses to customers in--						
Midwest 3/						
1985:						
Aug 4-10.....	2,101	73.43	3,490	68.42	5.01	7
Oct 6-12.....	101	71.11	100	58.03	13.08	18
1986:						
Jan 5-11.....	100	66.11	108	60.43	5.68	9
Feb 2-8.....	100	66.11	200	71.76	(5.65)	(9)
Aug 3-9.....	100	68.29	498	62.12	6.17	9
West 4/						
1986:						
Sept 7-13.....	***	***	***	***	***	***
Nov 2-8.....	***	***	***	***	***	***
Georgia						
1985:						
Sept 1-7.....	***	***	***	***	***	***

1/ The price comparisons were based on net delivered-selling-price data reported by U.S. producers and importers for barge, train, and combined rail/barge shipments. The price data were requested for their largest sale in the first week of each month from January 1985 through December 1986, and showed the location of their customers in each of these largest sales.
2/ Any figures in parentheses indicate that the price of the domestic product was less than the price of the imported Canadian product.
3/ Illinois, Indiana, Iowa, Missouri, and Ohio.
4/ Texas and Oklahoma.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

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Table 20.--Granular grade potassium chloride: Quantities and net delivered selling prices of the domestic and imported Canadian products and margins of under/(over) selling, by geographic areas and by the first week of each month, January 1985-December 1986 1/

Customer location and shipment period	Domestic		Canadian		Average margins of under/(over) selling 2/	
	Quantity	Price	Quantity	Price		
	Tons KCl	Per ton	Tons KCl	Per ton	Per ton	Percent
Sold directly from the mine to customers in--						
Midwest 3/						
1985:						
June 2-8.....	100	$101.41	1,803	$72.96	$28.45	28
July 7-13.....	100	72.00	1,701	70.97	1.03	1
Aug 4-10.....	1,500	73.00	100	77.50	(4.50)	(6)
Sept 1-7.....	100	92.41	101	69.50	22.91	25
Nov 3-92.....	101	68.19	1,902	68.50	(0.31)	(1)
1986:						
Jan 5-11.....	100	86.41	2,596	71.11	15.30	18
Feb 2-8.....	101	91.65	1,601	72.57	19.08	21
June 1-7.....	101	82.75	1,502	66.32	16.43	20
July 6-12.....	101	83.85	6,134	65.62	18.23	22
Aug 3-9.....	202	80.62	1,708	63.36	17.26	21
Sept 7-13.....	202	76.85	201	71.21	5.64	7
Oct 5-11.....	101	69.08	404	77.37	(8.30)	(12)
Nov 2-8.....	200	74.05	1,492	67.00	7.05	10
Dec 7-13.....	201	85.67	1,797	66.90	18.78	22
Upper Midwest 4/						
1985:						
Jan 6-12.....	***	***	***	***	***	***
Tennessee						
1985:						
Oct 6-12.....	101	69.99	1,501	$68.00	1.99	3
1986:						
Apr 6-12.....	100	71.24	1,614	70.50	0.74	1

See notes at the end of the table.

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Table 20.--Granular grade potassium chloride: Quantities and net delivered selling prices of the domestic and imported-Canadian products and margins of under/(over) selling, by geographich areas, and by the first week of each month, January 1985-December 1986--Continued 1/

Customer location and shipment period	Domestic		Canadian		Average margins of under/(over) selling 2/	
	Quantity	Price	Quantity	Price		
	Tons KCl	Per ton	Tons KCl	Per ton	Per ton	Percent
Domestic KCl sold directly from the U.S. mine and Canadian KCl sold from U.S. warehouses to customers in--						
Midwest 3/						
1985:						
July 7-13.....	100	$72.00	95	$70.62	$1.38	2
Aug 4-10.....	1,500	73.00	298	72.23	0.77	1
Sept 1-7.....	100	92.41	299	70.82	21.59	23
1986:						
Feb 2-8.....	101	91.65	100	72.82	18.83	21
June 1-7.....	101	82.75	195	67.51	15.24	18
Aug 3-9.....	202	80.62	99	62.88	17.74	22
Sept 7-13.....	202	76.85	295	76.40	0.45	1
Nov 2-8.....	200	74.05	196	68.02	6.03	8
Tennessee						
1985:						
Oct 6-12.....	101	69.99	96	68.39	1.60	2

1/ The price comparisons were based on net delivered-selling-price data reported by U.S. producers and importers for barge, train, and combined rail/barge shipments. The price data were requested for their largest sale in the first week of each month during January 1985-December 1986, and showed the location of their customers in each of these largest sales.
2/ Any figures in parentheses indicate that the price of the domestic product was less than the price of the imported Canadian product.
3/ Illinois, Indiana, Iowa, Missouri, and Ohio.
4/ Michigan, Minnesota, and Wisconsin.

Source: Compiled from data subaitted in response to questionnaires of the U.S. International Trade Commission.

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their U.S. warehouses/distribution terminals to customers in the United States. The Canadian producers ship their potassium chloride to the U.S. market in a variety of transportation modes, but rely heavily upon unit trains and rail/barge combinations for shipping large volumes over long distances. Sales from their U.S. warehouses are usually shipped by rail or truck.

Five U.S. producers and seven importers of the Canadian potassium chloride responded to the section of the questionnaire requesting information on their efforts to sell to the Midwestern United States, where the bulk of potassium chloride used as fertilizer is consumed in the U.S. market. Responses of U.S. producers indicate that they have closed their warehouses and have largely abandoned efforts to secure warehouses in this area. The producers cited high freight and distribution costs, including leasing and inventory costs, that would force them to incur losses on sales from warehouses in the Midwest. Two of these producers reported that they still serve customers in Illinois, Missouri, and Iowa directly from their mineheads by rail and truck, or by rail/barge shipments through St. Louis, MO. Three other producers indicated that they were not competitive in the midwestern states; one of these firms reported that it was unsuccessful in its efforts to negotiate lower freight rates with the Santa Fe railroad.

The responding importers generally indicated opening additional warehouses and cited negotiating more favorable rail and truck rates with the domestic and Canadian carriers, especially in 1984-85, after the United States deregulated interstate freight rates. 1/ Two importers also indicated negotiating backhaul agreements with northern U.S. rail lines to obtain lower freight costs. Another cited introducing fan-car shipments, which are full or part trains of private rail cars moved to a specific central location for single car "fan-out" to various customer locations. In general, the responding importers noted that their distribution systems and the large-volume movement of potassium chloride have inherent dollar savings that have benefited customers in terms of improved service and lower costs.

Exchange rates

Quarterly data reported by the International Monetary Fund indicate that the nominal value of the Canadian dollar depreciated relative to the U.S. dollar by approximately 9 percent during January 1984-September 1986--the latest period data were available (table 21). An approximately 4-percent inflation rate in Canada compared with almost 4 percent deflation in the United States during this period resulted in less real depreciation of the Canadian dollar compared with the nominal appreciation. In real terms, the Canadian dollar depreciated against the U.S. dollar during January 1984-September 1986 by approximately 2 percent. 2/

1/ Some new warehouse locations cited include the following: ***.

2/ The real depreciation of the Canadian dollar against the U.S. dollar from the reference period, January-March 1984, indicates the maximum amount that a Canadian producer or its agent would have to decrease its U.S.-dollar prices of the foreign potassium chloride products in the U.S. market without increasing its profits, assuming the foreign costs had not risen and were not denominated in U.S. dollars. A Canadian producer, however, may allow its profits to increase by not decreasing its U.S. dollar prices or by decreasing its U.S. dollar prices by less than the depreciation would allow.

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Table 21.--U.S.-Canadian exchange rates: 1/ Indexes of the nominal and real exchange rates between the U.S. and Canadian dollars, and indexes of producer prices in the United States and Canada, 2/ by quarters, January 1984-December 1986

(January-March 1984=100)

Period	Nominal exchange-rate index	Real exchange-rate index 3/	U.S. Producer Price Index	Canadian Producer Price Index
1984:				
January-March.....	100.0	100.0	100.0	100.0
April-June.....	97.1	97.6	100.7	101.2
July-September.....	95.5	96.9	100.4	101.9
October-December....	95.2	97.0	100.2	102.1
1985:				
January-March.....	92.8	95.8	100.0	103.3
April-June.....	91.7	95.1	100.1	103.9
July-September.....	92.3	96.5	99.4	103.9
October-December....	91.0	95.3	100.0	104.8
1986:				
January-March.....	89.4	96.0	98.5	105.8
April-June.....	90.7	98.0	96.6	104.4
July-September.....	90.6	98.3	96.2	104.3
October-December....	90.7	4/	96.5	4/

1/ Based on exchange rates expressed in U.S. dollars per Canadian dollar.
2/ The producer price indexes are aggregate measures of inflation at the wholesale level in the United States and Canada. As a result, these indexes only approximate actual price changes of potassium chloride in the United States and Canada. Quarterly producer prices in the United States fell by 3.5 percent during January 1984-September 1986, compared with rising producer prices in Canada during this period of 4.3 percent. Prices in the United States then moved up slightly in October-December 1986; price data for Canada during this latter period, however, were not available.
3/ The real value of a currency is the nominal value adjusted for the difference between inflation rates as measured by the producer price index in the United States and Canada.
4/ Data not available.

Source: International Monetary Fund, International Financial Statistics, February 1987.

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Lost sales

Thirty-two specific allegations of lost sales involving 20 purchasers and 105,300 tons of potassium chloride were reported by two U.S. producers of potassium chloride. 1/ The Commission staff was able to contact 9 of the purchasers cited, covering 83,000 tons. Conversations with representatives of the firms contacted are discussed in detail below.

*** alleged that the firm had lost a sale in *** of *** tons of granular potash to importers of Canadian potash. The U.S. price offer to *** of ***, was *** per ton; *** did not know the final price of the imports. *** of *** was unable to confirm the specific allegation but stated that the firm does buy Canadian potash. Canadian potash is shipped by rail to *** and by barge from there to ***. The freight costs of the Canadian product are below those of the U.S. producers shipping from Carlsbad, and the Canadian product generally is about *** per ton less as a result. This price difference is the principle advantage of the imported product, according to ***.

*** also stated that they had offered *** a price of *** per ton for a purchase of *** tons of soluble potash in ***, but again lost the sale to Canadian imports. However, *** stated that his firm did not purchase Canadian soluble potash in ***. *** buys soluble product only in ***. He noted that the price of imports of this product is also below the U.S. producers' price.

*** named *** of ***, as the purchaser of *** tons of Canadian granular potash in ***. The U.S. offering price was *** per ton but the customer allegedly bought imports at a lower price. ***, of ***, stated that he actually had bought *** to *** tons of Canadian potash in a series of purchases of *** to *** tons, each at a different price. He believes that Canadian potash is better quality than the U.S. product, as well as being less expensive. He also noted that the Canadian firms have placed potash in warehouses throughout the Midwest and that, when delivery is needed quickly during peak period, they have product available. In his opinion, producers delivering from Carlsbad may not have the same availability.

*** named *** of ***, as the purchaser of *** tons of Canadian granular potash in ***. *** had offered the product to *** at *** per ton. *** stated that his firm, a division of ***, never received a quote from ***. 2/ *** was personally asked by the U.S. supplier about freight car capacity, but *** did not follow through with a specific price or quantity offer. *** noted that the U.S. and imported products were comparable from his point of view as a ***.

*** named ***, of ***, as the customer in two lost sales allegations. In the first of these, *** reportedly purchased *** tons of Canadian potassium chloride at a price of *** per ton in the ***, turning down an *** offer of *** per ton. In the second instance, *** reportedly purchased *** tons of Canadian potassium chloride at a price of *** per ton in the ***, turning down the *** offer of *** per ton.

*** of *** referred to the firm's purchase records and determined that *** had a delivery by barge of *** tons of potassium chloride from *** in late

1/ The two reporting U.S. producers were ***, and ***. ***.
2/ ***.

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***, and barge shipments of *** tons from *** over a 4 month period in late ***. He stated, however, that the U.S. producer's prices quoted in the allegations were list prices that, in fact, had never been quoted to him. *** commented that in the *** purchase he had received quotes of *** per ton delivered from a domestic producer and *** per ton from *** for Canadian potassium chloride. In the *** instance, *** cited *** per ton quotes for domestic potassium chloride from both *** and ***, while *** offered him potassium chloride at *** per ton for Canadian potassium chloride.

*** stated that *** had formerly purchased large quantities of potassium chloride from ***, and that this product had been shipped by rail to *** and then by barge to *** river locations. During the last 2 years, when *** has asked *** for price quotes, he has been informed that the firm does not have sufficient inventory on hand to meet his requirements. *** stated that the firm told him that they have sold large quantities of potassium chloride overseas.

*** indicated that freight from Carlsbad to major consuming states in the Midwest is much higher than from Canada. He cited a cost of *** per ton by rail or truck from New Mexico to his *** location compared with a cost of *** per ton from Canada (by rail and barge). He also stated that, ***, ***.

*** named *** in a lost sales allegation involving *** tons of standard grade potassium chloride at *** per ton in the ***. The rejected U.S. price was reportedly *** per ton. *** of *** could not recall the specific sale in question but said that it was no doubt to the ***. ***. ***. He stated that *** is the only location where Canadian and U.S. producers of potassium chloride compete head-to-head. The price at that location has been *** delivered for at least the past year. However, recently *** has been offering U.S.-produced potassium chloride from *** to *** per ton and *** felt that these offers would hurt Canadian sales in the area. *** said that U.S. potassium chloride is not competitive ***. Because there is no significant quality difference between U.S. and Canadian product, price is the determining factor in his purchase decisions.

*** named ***, of ***, as the purchaser of *** tons of coarse potassium chloride from Canada in the *** at the price of *** per ton. The rejected U.S. quote was *** per ton. An additional lost sale of *** tons was alleged in the *** at the same price. *** of *** stated that he purchases for *** who, in turn, sell to accounts in ***. He stated that the quantities and prices mentioned in the allegations are appropriate for the time, but that he could not provide definite information on the sales.

*** stated that he purchases potassium chloride from Carlsbad, mostly through private truckers who haul corn and soybeans to Texas and return with potassium chloride. In many cases the truckers actually purchase the potassium chloride themselves and sell to *** and others on their return. He has just recently purchased *** tons of domestic potassium chloride from Carlsbad at a price of about *** per ton delivered. The current Canadian price is *** from their *** warehouses. He stated that while *** purchased *** tons each of the last *** crop years, he expected a decline to about *** tons this year owing to the effects of Federal agricultural programs. In addition, he stated that while the Santa Fe Railroad offers unit train rates from Carlsbad to ***, the additional cost of trucking potassium chloride the

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remaining distance to *** raises the delivered price above the price of imports from Canada. He remarked that occasional backhaul arrangements with truckers taking U.S. grain to Canada and returning with potassium chloride have recently been halted as the result of restrictions on the importation of U.S. grain into Canada.

*** cited ***, as the purchaser of *** tons of potassium chloride from Canada in the *** at the price of *** a ton. The rejected U.S. offer was *** a ton. *** of *** said the prices and amount mentioned in the allegation were correct or close to correct. *** is a *** which buys standard from both Carlsbad and Canada. *** said they probably buy more from Carlsbad than Canada. Most of their Canadian standard grade is from ***. Price is the major factor. They buy in single cars, or six to ten car multiples, after the product is barged from ***, to ***.

Lost revenue

Twenty specific allegations of lost revenue, involving 17 purchasers and 79,994 tons of potassium chloride were reported by two U.S. producers of potassium chloride. 1/ The Commission staff was able to contact 10 of the purchasers cited, covering 67,719 tons. Conversations with representatives of the firms contacted are discussed in detail below.

*** named *** of ***, in a lost revenue allegation involving *** tons of granular potash in ***. *** allegedly had to reduce its price from *** per ton to *** per ton in *** in order to make the sale against Canadian competition, for a loss of potential revenue of ***. *** of *** stated that his firm is ***, and that they purchase about *** tons of potash annually. He confirmed that he had purchased *** tons from *** at *** delivered after the U.S. producer reduced his price from *** in direct competition with importers of Canadian potash. *** said that the imports were *** (an importer) and sold at a delivered price of *** per ton in ***. Payment for the imports was not due until ***. At the time, the U.S. producer's price was ***, f.o.b. Carlsbad, and freight costs were *** per ton. He stated that the U.S. and Canadian products were of the same quality and, since "he did not buy from foreigners," he purchased the U.S. product. He observed that U.S. producers had been lowering their prices to remain competitive with imports from Canada.

*** named *** of ***, in lost revenue allegations involving *** tons in *** and *** tons in ***. In the first instance, *** reduced its offering price from *** per ton to *** per ton, and in the second instance from *** to *** per ton. Total potential revenue losses for these sales were ***. *** of *** would not provide specific information by telephone but said that *** purchases both U.S.-produced and Canadian potash.

*** named *** of ***, in a lost revenue allegation involving the sale of *** tons of granular potash in ***. *** stated that its offering price was *** per ton, but that it subsequently had to meet a Canadian bid of *** per ton in order to make the sale, losing potential revenue of ***. *** of *** stated that the U.S. market for potash is shrinking and is oversupplied. The imbalance will be even greater in the 1987/88 crop year than previously

1/ The two reporting U.S. producers were ***, and ***. ***.

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because planted acreage is declining. ***. *** did not comment on the specific allegation made by ***, but stated that the market was soft at the time. In his opinion U.S. producers do lower their prices because of competition, but they often do not know if they are competing against imports from Canada or against other domestic producers. He stated that although the U.S. and Canadian prices are the same on an f.o.b. mine basis, the freight advantages enjoyed by the Canadians results in a lower delivered price for the imports. He also stated that the Canadian product is better quality because it is more consistent and does not "breakdown" as readily as either the U.S. product or imports from other countries.

*** named the ***, ***, as the customer to which they lowered their price in *** on a sale of *** tons of granular potassium chloride. The U.S. offer was *** per ton, but the sale was made only by meeting the Canadian price of *** per ton, for a loss of potential revenue of ***. *** of *** stated that the price for potassium chloride purchased from *** might very well have been lowered from *** per ton to *** per ton, but that such a reduction would have been made to meet the offers of other U.S. producers. He stated that the price of Canadian potassium chloride also declined in *** to meet U.S. competition. *** stated that his firm purchases both U.S. and Canadian potassium chloride and finds little difference in quality. Therefore, he purchases from whoever offers the best price.

*** named *** as the purchaser of *** tons of granular potassium chloride in ***. *** reportedly reduced its price from *** per ton to *** per ton to make the sale against its Canadian competition, for a loss in potential revenues of ***. *** of *** stated that he could not recall the specific instance refered to in the allegation, and that the firm may have bought the domestic material but only in a smaller total quantity. He stated that such purchases normally would have been only single railcars (about 200 tons) or truckloads (20 tons). *** stated that U.S. and Canadian potassium chloride are similar in quality, but that world market conditions for potassium chloride are such that all sources must compete on the basis of price. ***. ***.

*** stated in a lost revenue allegation that they had to lower their price on a sale of *** tons of granular potassium chloride to *** of ***, in ***. The original offering price was *** per ton but, in competition with imports from Canada, *** lowered its price to *** per ton for a loss of potential revenues of ***. *** of *** stated only that the alleged price and quantities "sounded correct." He said that *** tons is about a barge load and, if it was sitting, the price would have been reduced by the trader to get rid of the product. He said both traders and producers set prices. At the mine, he noted, the quality of both U.S. and Canadian potassium chloride is about the same, but that quality breaks down as the product is handled between barge, ship, and railcar. In general, if one supplier reduces prices, all others will follow suit.

***, of ***, was named by *** in a lost revenue allegation involving coarse potash. According to the allegation, *** reduced its price in the *** from *** per ton to *** per ton on a sale of *** tons, for a loss of potential revenue of ***. ***, of *** stated that the firm primarily purchases potash for export, although some is also purchased for domestic resale. ***. He observed that in such sales his firm competes directly with Canadian firms and

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that *** would be unable to sell the product at the price initially requested by the U.S. producer. Although he could not confirm the exact final price of the sale, the *** per ton mentioned is consistent with the price needed to compete with the world price at that time. *** also observed that U.S. produced potash is generally comparable with Canadian potash in terms of quality and grade. In the case of ***, he noted, the K_2O content was actually marginally above the Canadian product.

*** named ***, ***, in a lost revenue allegation involving *** tons in ***. *** allegedly had to reduce its offering price from *** per ton to *** per ton, or a reduction in potential revenue of ***. *** of *** was unable to confirm the specific information provided by ***. ***. ***. *** observed that the market for potash is very competitive and the price depends largely on the geographic location of the customer. He believes that Canada has an excellent transportation and distribution system, but that neither they nor the U.S. producer are consistently responsible for the lowest prices. Sometimes imports are priced below the U.S. product in his area of concern, but the larger particle size of the Canadian potash is viewed by him as a negative quality factor. He believes also that the overabundance of potash in the market is an important factor in selling price, and that the suppliers seldom know if their competitors are U.S. producers or importers because large-volume buyers generally take quotes without divulging such information.

*** of ***, was named by *** as the purchaser of *** tons of potash in a lost revenue allegation. This firm was initially offered in the *** a price of *** per metric ton, but the sale was finally made at *** per ton, for a loss of potential revenue of ***. *** of *** stated that although the exact details cannot be confirmed, the *** price was their offer to ***, and was based on the world price prevailing at the time. ***. Therefore, according to ***, *** was not competing against any single country, such as Canada, in the specified instance, but against all suppliers worldwide.

*** named ***, ***, in three lost revenue allegations. These allegations all took place in the ***, and involved *** offers to sell standard grade potassium chloride in amounts of *** tons at *** per ton, *** tons at *** and *** tons at ***. *** stated that, after competing with Canadian producers for these sales, the sales were made at *** per ton in each case, for a loss of potential revenue of ***. ***. He stated that, nevertheless, *** negotiates prices with both producers and importers for all purchases. He stated that the firm may refer in negotiations to low prices that are not actually offered by a supplier but that *** believes are possible to obtain in the market at the time. *** always tries to obtain the lowest price possible, according to ***.

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APPENDIX A

FEDERAL RESISTER NOTICES OF THE U.S. INTERNATIONAL TRADE COMMISSION AND THE U.S. DEPARTMENT OF COMMERCE

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[Investigation No. 731-TA-374 (Preliminary)]

Import Investigation; Potassium Chloride From Canada

AGENCY: International Trade Commission.

ACTION: Institution of a preliminary antidumping investigation and scheduling of a conference to be held in connection with the investigation.

SUMMARY: The Commission hereby gives notice of the institution of preliminary antidumping investigation No. 731-TA-374 (Preliminary) under section 733(a) of the Tariff Act of 1930 (19 U.S.C. 1673(a)) to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Canada of potassium chloride, provided for in item 480.50 of the Tariff Schedules of the United States, which are alleged to be sold in the United States at less than fair value. As provided in section 733(a), the Commission must complete preliminary antidumping investigations in 45 days, or in this case by March 27, 1987.

For further information concerning the conduct of this investigation and rules of general application, consult the Commission's Rules of Practice and Procedure, Part 207, Subparts A and B (19 CFR Part 207), and Part 201, Subparts A through E (19 CFR Part 201).

EFFECTIVE DATE: February 11, 1987.

FOR FURTHER INFORMATION CONTACT: Jim McClure (202-523-1783), Office of Investigations, U.S. International Trade Commission, 701 E Street NW., Washington, DC 20436. Hearing-impaired individuals may obtain information on this matter by contacting the Commission's TDD terminal on 202-724-0002. Information may also be obtained via electronic mail by assessing the Office of Investigations' remote bulletin board system for personal computers at 202-523-0103.

SUPPLEMENTARY INFORMATION:

Background

This investigation is being instituted in response to a petition filed on February 10, 1987, by Lundberg Industries, Ltd., of Dallas, TX, and the New Mexico Potash Corp. of Memphis, TN, U.S. producers of potassium chloride.

Participation in the investigation

Persons wishing to participate in this investigation as parties must file an

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entry of appearance with the Secretary to the Commission, as provided in § 201.11 of the Commission's rules (19 CFR 201.11), not later than seven (7) days after publication of this notice in the Federal Register. Any entry of appearance filed after this date will be referred to the Chairman, who will determine whether to accept the late entry for good cause shown by the person desiring to file the entry.

Service list

Pursuant to § 201.11(d) of the Commission's rules (19 CFR 201.11(d)), the Secretary will prepare a service list containing the names and addresses of all persons, or their representatives, who are parties to this investigation upon the expiration of the period for filing entries of appearance. In accordance with § 201.16(c) and 207.3 of the rules (19 CFR 201.16(c) and 207.3), each document filed by a party to the investigation must be served on all other parties to the investigation (as identified by the service list), and a certificate of service must accompany the document. The Secretary will not accept a document for filing without a certificate of service.

Conference

The Director of Operations of the Commission has scheduled a conference in connection with this investigation for 9:30 a.m. on March 3, 1987, at the U.S. International Trade Commission Building, 701 E Street NW., Washington, DC. Parties wishing to participate in the conference should contact Jim McClure (202-523-1793) not later than February 26, 1987, to arrange for their appearance. Parties in support of the imposition of antidumping duties in this investigation and parties in opposition to the imposition of such duties will each be collectively allocated one hour within which to make an oral presentation at the conference.

Written submissions

Any person may submit to the Commission on or before March 6, 1987, a written statement of information pertinent to the subject of the investigation, as provided in § 207.15 of the Commission's rules (19 CFR 207.15). A signed original and fourteen (14) copies of each submission must be filed with the Secretary to the Commission in accordance with § 201.8 of the rules (19 CFR 201.8). All written submissions except for confidential business data will be available for public inspection during regular business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary of the Commission.

Any business information for which confidential treatment is desired must be submitted separately. The envelope and all pages of such submissions must be clearly labeled "Confidential Business Information." Confidential submissions and requests for confidential treatment must conform with the requirements of § 201.6 of the Commission's rules (19 CFR 201.6).

Authority: This investigation is being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to § 207.12 of the Commission's rules (19 CFR 207.12).

Issued: February 13, 1987.

By order of the Commission.

Kenneth R. Mason,

Secretary.

[FR Doc. 87-3554 Filed 2-18-87; 8:45 am]
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[A-122-701]

Initiation of Antidumping Duty Investigation; Potassium Chloride from Canada

AGENCY: Import Administration, International Trade Administration, Commerce.

ACTION: Notice.

SUMMARY: On the basis of a petition filed in proper form with the U.S. Department of Commerce, we are initiating an antidumping duty investigation to determine whether imports of potassium chloride from Canada are being, or are likely to be, sold in the United States at less than fair value. We are notifying the U.S. International Trade Commission (ITC) of this action so that it may determine whether imports of this product materially injure, or threaten material injury to, a U.S. industry. If this investigation proceeds normally, the ITC will make its preliminary determination on or before March 27, 1987, and we will make ours on or before July 20, 1987.

EFFECTIVE DATE: March 5, 1987.

FOR FURTHER INFORMATION CONTACT: Mary Clapp, Office of Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue NW, Washington, DC 20230, telephone (202) 377-1769.

SUPPLEMENTARY INFORMATION:

The Petition

On February 10, 1987, we received a petition filed in proper form by Lundberg Industries, Ltd., and New Mexico Potash Corporation, on behalf of the U.S. industry producing potassium chloride. In compliance with the filing requirements of § 353.36 of the Commerce Regulations (19 CFR 353.36), the petition alleged that imports of potassium chloride from Canada are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (the Act), and that these imports materially injure, or threaten material injury to, a U.S. industry.

The petitioners based the United States prices on U.S. Bureau of Census import statistics less estimated foreign inland freight. Petitioners alleged that Canadian home market and third country prices are below the cost of production. There, they used constructed value as the foreign market value. The constructed value is based on production costs estimated by the U.S. Department of the Interior, Bureau of Mines. Because the Bureau of Mines estimate of operating expenses included amounts for selling, general and administrative expenses, a separate amount for such expenses was not added in the calculation of the constructed value. Petitioners added the statutory minimum of eight percent for profit. Based on the comparison of the U.S. price to the constructed value calculated by the foregoing methods, the potential dumping margin is 42.86 percent.

Initiation of Investigation

Under section 732(c) of the Act, we must determine, within 20 days after a petition is filed, whether it sets forth the allegations necessary for the initiation of an antidumping duty investigation and whether it contains information reasonably available to the petitioners supporting the allegations.

We examined the petition on potassium chloride from Canada and found that it meets the requirements of section 732(b) of the Act. Therefore, in accordance with section 732 of the Act, we are initiating an antidumping duty investigatin to determine whether imports of potassium chloride from Canada are being, or are likely to be, sold in the United States at less than fair value. If our investigation proceeds normally, we will make our preliminary determination by July 20, 1987.

Scope of Investigation

The merchandise covered by this investigation is potassium chloride, otherwise known as muriate of potash. The product is classified under item number 480.50 of the *Tariff Schedules of the United States* (TSUS).

Notification of ITC

Section 732(d) of the Act requires us to notify the ITC of this action and to provide it with the information we used to arrive at this determination. We will notify the ITC and make available to it all nonprivileged and nonproprietary information. We will also allow the ITC access to all privileged and business proprietary information in our files, provided it confirms in writing that it will not disclose such information either publicly or under an administrative protective order without the written consent of the Deputy Assistant Secretary for Import Administration.

Preliminary Determination by ITC

The ITC will determine by March 27, 1987, whether there is a reasonable indication that imports of potassium chloride from Canada materially injure, or threaten material injury to, a U.S. industry. If its determination is negative the investigation will terminate; otherwise it will proceed according to the statutory and regulatory procedures.

This notice is published pursuant to section 732(c)(2) of the Act.

Gilbert B. Kaplan,

Deputy Assistant Secretary for Import Administration.

March 2, 1987.

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APPENDIX B

LIST OF WITNESSES APPEARING AT THE COMMISSION'S CONFERENCE

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Calendar of Public Conference

Investigation No. 731-TA-374 (Preliminary)

POTASSIUM CHLORIDE FROM CANADA

Those listed below appeared at the United States International Trade Commission's conference in connection with the subject investigation on Tuesday, March 3, 1987, in the Hearing Room of the USITC Building, 701 E Street, N.W., Washington, DC.

In support of the imposition of antidumping duties

Vinson & Elkins--Counsel
Washington, DC
on behalf of

Lundberg Industries, Ltd.
New Mexico Potash Corp.

Thomas P. Lundberg, President
Lundberg Industries, Ltd.

David Henderson, Comptroller
Lundberg Industries, Ltd.

James Gallagher, Sales Manager
Lundberg Industries, Ltd.

Lloyd E. Harcrow, Director of Operations
Cedar Chemical Corporation

R. Paul Jolley, Sales Manager
New Mexico Potash Corp.

Theodore W. Kassinger)
Gretchen A. Hegemier) --OF COUNSEL

In opposition to the imposition of antidumping duties

Covington & Burling--Counsel
Washington, DC
on behalf of

International Minerals & Chemical Corp.

Richard Roch, Vice President, Fertilizer Group,
International Minerals & Chemical Corp.

Bruce P. Maleshevich, Vice President,
Economic Consulting Services, Inc.

Harvey M. Applebaum)
O. Thomas Johnson, Jr.)--OF COUNSEL
Sonya D. Winner)

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In opposition to the imposition of antidumping duties

Morgan, Lewis & Bockius--Counsel
Washington, DC
on behalf of

Kalium Chemicals/PPG Industries, Inc.

John Douglas, Douglas Associates

Robert D. Lindberg

Thomas V. Vakerics)
Kenneth Weigle)--OF COUNSEL
Michael Calabrese)

Taft, Stettinius & Hollister--Counsel
Washington, DC
on behalf of

Central Canada Potash

George Jones, Manager, Fertilizers,
Noranda Sales, Inc.

James D. Williams, Jr.)
Ann Ottoson King) --OF COUNSEL

Arent, Fox, Kintner, Plotkin & Kahn--Counsel
Washington, DC
on behalf of

Potash Corporation of Saskatchewan

Dale Hathaway, Vice President,
The Consultants International Group, Inc.

Stephen L. Gibson)
Jerome P. Akman)--OF COUNSEL
Mira Davidovski)

Bogle & Gates--Counsel
Seattle, WA
on behalf of

Cominco Ltd. and Cominco American, Inc.

Dale Massie, Vice-President, Marketing,
Cominco American, Inc.

Joel R. Junker)
Christopher N. Weiss)--OF COUNSEL
Pat McCausland)

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APPENDIX C

TRADE DATA AND FINANCIAL PERFORMANCE TABLES OF U.S. PRODUCERS OF POTASSIUM CHLORIDE, WITH IMC EXCLUDED, 1984-86

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Table C-1.--Potassium chloride: U.S. production capacity, production, and capacity utilization, with IMC excluded, 1984-86

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Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table C-2.--Potassium chloride: U.S. producers' shipments, with IMC excluded, 1984-86

* * * * * * *

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

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Table C-3.--Potassium chloride: U.S. producers' yearend inventories, with IMC excluded, 1984-86

* * * * * * *

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

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Table C-4.--Average number of production and related workers engaged in the production of potassium chloride, average number of hours worked by such workers, and wages, total compensation, and hourly compensation paid to such workers, with IMC excluded, 1984-86

* * * * * * *

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

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Table C-5.--Income-and-loss experience of International Minerals & Chemicals (IMC) and 5 other U.S. producers on their operations producing potassium chloride, accounting years 1984-86.

Item	1984	1985	1986
Net sales:			
IMC.....1,000 dollars..	***	***	***
Other 5.....do...	***	***	***
Aggregate net sales.....do...	157,606	108,169	77,802
Cost of goods sold:			
IMC.....do...	***	***	***
Other 5.....do...	***	***	***
Aggregate cost of goods sold.....do...	152,377	118,773	81,080
Gross profit or (loss):			
IMC.....do...	***	***	***
Other 5.....do...	***	***	***
Aggregate gross profit or (loss)..do...	5,229	(10,604)	(3,278)
General, selling, and administrative expenses:			
IMC.....do...	***	***	***
Other 5.....do...	***	***	***
Aggregate general, selling, and administrative expenses.....do...	7,740	6,392	5,361
Operating income or (loss):			
IMC.....do...	***	***	***
Other 5.....do..	***	***	***
Aggregate operating income or (loss).....do...	(2,511)	(16,996)	(8,639)
Depreciation and amortization expense:			
IMC.....do...	***	***	***
Other 5.....do...	***	***	***
Aggregate depreciation and amortization expense.....do...	34,541	6,481	2,899
Ratio to net sales:			
Cost of goods sold:			
IMC.....percent..	***	***	***
Other 5.....do...	***	***	***
Aggregate cost of goods sold....do...	96.7	109.8	104.2
Gross profit or (loss):			
IMC.....do...	***	***	***
Other 5.....do...	***	***	***
Aggregate gross profit or (loss).....	3.3	(9.8)	(4.2)
General, selling, and administrative expenses:			
IMC.....do...	***	***	***
Other 5.....do...	***	***	***
Aggregate general, selling, and administrative expenses.....do...	4.9	5.9	6.9
Operating income or (loss):			
IMC.....do...	***	***	***
Other 5.....do...	***	***	***
Aggregate operating income or (loss).....do...	(1.6)	(15.7)	(11.1)

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Table C-6.--Income-and-loss experience of International Minerals & Chemicals (IMC) and 5 other U.S. producers on their overall operations of the establishments within which potassium chloride is produced, accounting years 1984-86.

Item	1984	1985	1986
Net sales:			
IMC.....1,000 dollars..	***	***	***
Other 5.....do...	***	***	***
Aggregate net sales.....do...	819,175	682,903	566,843
Cost of goods sold:			
IMC.....do...	***	***	***
Other 5.....do...	***	***	***
Aggregate cost of goods sold.....do...	712,560	645,332	532,291
Gross profit :			
IMC.....do...	***	***	***
Other 5.....do...	***	***	***
Aggregate gross profit.....do...	106,615	37,571	34,552
General, selling, and administrative expenses:			
IMC.....do...	***	***	***
Other 5.....do...	***	***	***
Aggregate general, selling, and administrative expenses.....do...	38,791	37,886	33,646
Operating income or (loss):			
IMC.....do...	***	***	***
Other 5.....do...	***	***	***
Aggregate operating income or (loss).....do...	67,824	(315)	906
Interest expense:			
IMC.....do...	***	***	***
Other 5.....do...	***	***	***
Aggregate interest expense.....do...	30,538	26,655	23,617
Other income (expense), net:			
IMC.....do...	***	***	***
Other 5.....do...	*** 1/	*** 2/	*** 3/
Aggregate other income or (expense),net.....do...	(56,824)	37,044	13,612
Net income (loss) before tax:			
IMC.....do...	***	***	***
Other 5.....do...	***	***	***
Aggregate net income or (loss) before income taxes.....do...	(19,538)	10,074	(9,099)
Depreciation and amortization expense:			
IMC.....do...	***	***	***
Other 5.....do...	***	***	***
Aggregate depreciation and amortization expense.....do...	80,691	51,424	53,141
Cash-flow from operations.....do...			
IMC.....do...	***	***	***
Other 5.....do...	***	***	***
Aggregate cash-flow.....do...	61,153	61,498	44,042

(Table continued on following page)

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Table C-6.--Income-and-loss experience of International Minerals & Chemicals (IMC) and 5 other U.S. producers on their overall operations of the establishments within which potassium chloride is produced, accounting years 1984-86--Continued.

Item	1984	1985	1986
Ratio to net sales:			
Cost of goods sold:			
IMC.....percent..	***	***	***
Other 5.....do...	***	***	***
Aggregate cost of goods sold....do...	87.0	94.5	93.9
Gross profit or (loss):			
IMC.....do...	***	***	***
Other 5.....do...	***	***	***
Aggregate gross profit.....do...	13.0	5.5	6.1
General, selling, and administrative expenses:			
IMC.....do...	***	***	***
Other 5.....do...	***	***	***
Aggregate general, selling, and administrative expenses.....do...	4.7	5.5	5.9
Operating income or (loss):			
IMC.....do...	***	***	***
Other 5.....do...	***	***	***
Aggregate operating income or (loss).....do...	8.3	4/	0.2
Net income or (loss) before income taxes:			
IMC.....do...	***	***	***
Other 5.....do...	***	***	***
Aggregate net income or (loss) before income taxes.....do...	(2.4)	1.5	(1.6)

1/ Includes *** expense for asset write-downs and ***.
2/ Includes ***, ***, and *** expense for asset write-downs.
3/ Includes *** expense for asset write-downs.
4/ Less than (0.05) percent.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

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